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THE

ENGINE STORAGE

South African MINING JOURNAL

AND ENGINEERING RECORD

With which is incorporated "THE SOUTH AFRICAN MINES, COMMERCE AND INDUSTRIES."

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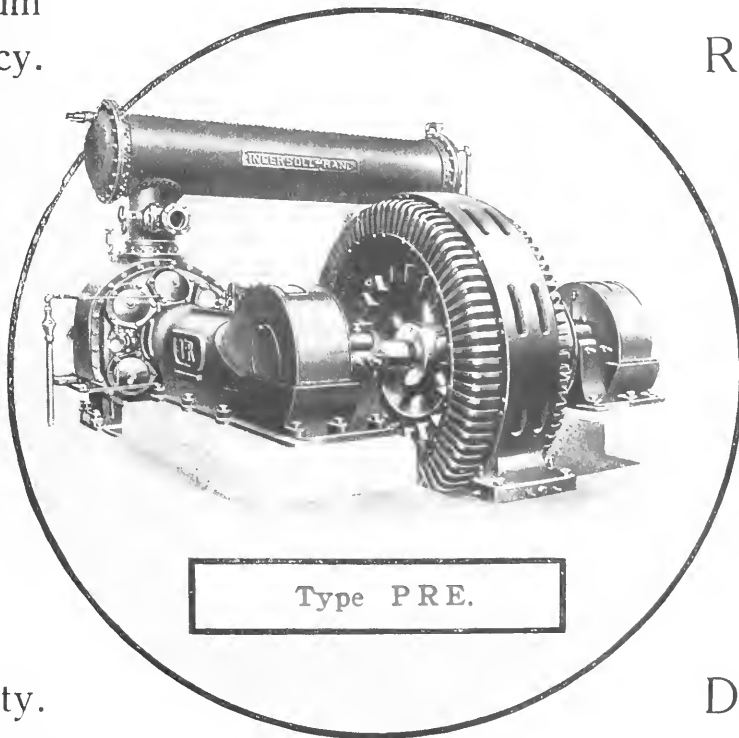
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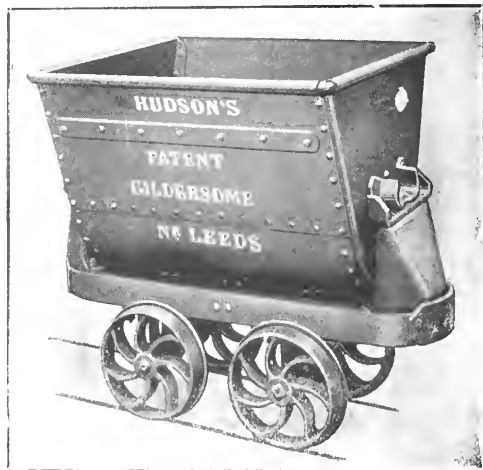
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(W. M. HUDSON, Managing Director.)

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East London	-	-	Camping on beach feature of season; excellent sea bathing, delightful river.
Durban	and North & South Coast Resorts	-	Premier South African winter residences. Sub-tropical surroundings, refreshingly novel.

Johannesburg.

W. W. HOY,
General Manager.

CITY DEEP, LIMITED.

(Incorporated in the Transvaal.)

Directorate: E. A. Wallers, C.B.E. (Chairman), alternate C. Meintjes; Major R. W. Ffennell, alternate F. Raleigh; H. C. Boyd, alternate A. F. Mullins; F. R. Lynch, alternate A. F. Lyall; Sir A. Bailey, K.C.M.G., M.L.A., alternate W. J. Gau; H. Newhouse, alternate V. J. Ronketti; W. Dalrymple, alternate E. H. Read; F. G. C. E. Robellaz, alternate F. C. Dumat. London Committee: F. Davies, alternate R. A. Macqueen; L. Wagner, alternate P. Troquet; T. J. Miller, alternate J. L. Siddall; F. A. Robinson, alternate G. R. Airth. Consulting Engineer:

F. H. Clifford. Manager at Mine: P. W. Sherwell. Secretaries: Rand Mines, Limited. London Secretaries: A. Moir and Co. Bankers: The Standard Bank of South Africa, Limited. Auditors: C. Stuart; C. L. Andersson & Co. Solicitors: Van Hulsteyn, Feltham & Pold. Head Office: The Corner House, Johannesburg. London Office: No. 1, London Wall Buildings, London, E.C. (2). Responsible Representatives in Paris: Crédit Mobilier Français, 30 and 32, Rue Taitbout, Paris. At 31st December, 1917.

REPORT OF THE DIRECTORS

For the Year ended 31st December, 1917.

To be submitted at the Seventeenth Ordinary General Meeting of Shareholders convened for Friday, the 21st June, 1918, at 12 noon, in the Board Room, The Corner House, Johannesburg.

To the Shareholders, CITY DEEP, LIMITED.

Gentlemen,—Your Directors beg to submit their Seventeenth Annual Report and Audited Accounts for the year ended 31st December, 1917, accompanied by Reports of the Consulting Engineer and Manager.

PROPERTY.

No change has taken place during the year in the area of your mining property, which consists of 1,081.0870 claims.

The area of your freehold property is now 1,642 morgen, 395.796 square rods, a small reduction for the year, on account of sales in freehold stands in Regent's Park Township, which realised £237 5s.

The Company also holds five water-rights on the Farm Klipriviersberg No. 25.

BEWAARPLAATSEN.

Your Directors beg to report that the Legislature has arrived at a determination of the basis upon which moneys derived from the disposal by them of the right to mine under Bewaarsplaatsen, etc., shall be distributed between the Government and the owner of the Freehold upon which the areas are situate. The proportion to be paid to the Freehold owner is 19/40ths of the proceeds received by the Government prior to the coming into effect of the Bewaarplaats Moneys Application Act, 1917, viz., 2nd July, 1917; and 18/40ths of the amounts to be subsequently received.

The net sum received by this Company to the end of the financial year as reflected in the Balance Sheet is £10,265 1s. 6d., and there remains a sum of approximately £12,800 to be received, spread over a period of about fourteen years.

Payment of the aforementioned sum of £10,265 1s. 6d. was made as to £10,207 in Union of South Africa 5 per cent. Local Registered Stock and the balance in cash.

OPERATIONS.

Particulars of the results of last year's operations, the development accomplished, the ore reserves and values are dealt with in the annexed reports of the Consulting Engineer and Manager.

Your Directors beg to draw your attention to the remarks in the Consulting Engineer's Report on the reduction in the working profit and ore reserve, and the prospects of the Mine.

ACCOUNTS.

The Working Profit for the year amounted to ££665,997 16s. 4d., to which has been added £16,021 16s. 1d., the difference between sundry items of revenue and expenditure detailed in the

Working Expenditure and Revenue Account, making a net profit for the year of £682,019 12s. 6d., which has been carried to Appropriation Account. This amount, together with the balance of £211,214 12s. 2d. unappropriated at the commencement of the year, making a total of £893,234 4s. 7d., has been dealt with as follows:—

Net Expenditure on Capital Account—

Equipment, etc., as per Manager's Report	£29,383 10 4
Housing scheme for Employees	3,000 0 0
Annuity in respect of Undermining Rights leased from Government	6,560 0 0
	<u>£38,943 10 4</u>

Less Amount received under Bewaarplaats Moneys Application Act . . . £10,265 1 6
Proceeds sale of Stands, Regent's Park Township 237 5 0

10,502 6 6

	<u>£28,441 3 10</u>
Government Taxes	85,830 16 11
Dividends Nos. 10 and 11	562,500 0 0
	<u>£676,772 0 9</u>

Leaving a balance unappropriated at 31st December, 1917, represented by Cash Investments and Cash Assets, less Liabilities, of . . .	<u>£216,462 3 10</u>
	<u>£893,234 4 7</u>

This balance is made up as follows:—

Shares and Interests in Co-operative Concerns	£7,845 8 6
Stores and Materials, etc.	99,248 1 10
Sundry Debtors and Payments in Advance	13,118 3 2
	<u>£120,211 13 6</u>
Net Cash and Investments after allowing for liabilities	96,250 10 4
	<u>£216,462 3 10</u>

City Deep, Limited--continued.

From the above it will be noticed that there is still a considerable amount of the Company's funds invested in Stores and Materials. Owing to the War and the continued difficulty in obtaining Mining Supplies, Shareholders will readily appreciate the necessity of carrying a large stock of supplies in order that mining operations may not be interfered with on that account.

The Income Tax (Consolidation) Act, 1917, which consolidated the various Acts dealing with taxation, came into force during the year, and the estimated amount of tax thereunder payable by the Company, inclusive of the Special War Levy, has been provided for in the accounts.

Your Company has taken up £50,000 in the British 5 per cent. War Loan, 1929-1947, at 95 per cent.

DIVIDENDS.

Two Dividends, Nos. 10 and 11, each of 22½ per cent., were declared by the Board of Directors during the year and absorbed £562,500.

In accordance with the "Trading with the Enemy Act, 1916" (Union of South Africa), the amounts due to Enemy Shareholders in respect of Dividends Nos. 9 and 10, have been handed over to the Custodian of Enemy Property.

DIRECTORATE.

Your Directors have to record with the deepest regret the death of their colleague, Mr. J. H. Ryan, who had been a Director of the Company since 1911.

You will be asked to re-elect Mr. H. C. Boyd, who was appointed by the Board to fill the vacancy created by the resignation of Mr. W. H. Dawe.

Messrs. E. A. Wallers, C.B.E., and H. Newhouse retire from the Board in accordance with the Articles of Association, but are eligible and offer themselves for re-election.

AUDITORS.

You are requested to fix the remuneration of the Auditors, Messrs. C. L. Andersson and Company, and Mr. Charles Stuart, for the past audit, and to appoint Auditors for the ensuing year.

GENERAL.

Two hundred and twenty of the Company's employees are, or have been, on Active Service in Europe and East Africa.

It is with deep regret that your Directors have to record the deaths on Active Service of Privates R. C. Harper, E. G. Harris, W. S. Harris and H. W. Hunter.

In view of the scarcity of paper and the irregularity in the ocean mail service, and the consequent delay in the issue of Quarterly Reports to European Shareholders, your Directors decided to discontinue the issue of these reports to European Shareholders, and in place thereof, to publish in the Press a cabled abridged summary contained the most important features of the quarter's operations. By this decision, which was applied to the report for the quarter ended 31st December, 1917, European Shareholders became aware of the results for the quarter much earlier than has been the case for some time past. A quarterly report will continue to be issued to South African Shareholders, a copy of which can be obtained on application by European Shareholders at the London Office of the Company.

E. A. WALLERS,
Chairman.

F. RALEIGH,

H. C. BOYD,

W. DALRYMPLE,

F. R. LYNCH,

H. NEWHOUSE.

F. C. DUMAT,

W. J. GAU.

Directors.

RAND MINES, LIMITED,
Secretaries.

S. C. STELL,
Secretary.

Johannesburg, 28th March, 1918.

BALANCE SHEET, 31st DECEMBER, 1917.

Dr.	
To Capital Account—	
Authorised:	
1,250,000 shares	
of £1 each	£1,250,000 0 0
Made up as under:	
1,249,993 shares of £1 each	
issued	£1,249,993 0 0
7 shares of £1 each	
yet to be issued in	
exchange for un-	
converted shares	7 0 0
1,250,000 shares of £1 each	£1,250,000 0 0
„ Share Premium Account—	
As per Balance Sheet, 31st De-	
cember, 1916	361,432 10 0
„ Funds Transferred from Appro-	
priation Account—	
For expenditure on Property, De-	
velopment and Equipment in	
excess of working capital pro-	
vided—	
As per Balance	
Sheet, 31st De-	
cember, 1916	£235,528 17 1
For the year ended	
31st December,	
1917	28,441 3 10
	263,970 0 11
	625,402 10 11
Carried forward	£1,875,402 10 11

Cr.	
By Claim Property, etc.—	
As per Balance Sheet, 31st De-	
cember, 1916	£441,547 14 8
Less Net Credit for year—	
Amount received	
under Bewsar-	
plaats Moneys Ap-	
plication Act, 1917	£10,265 1 6
Regents Park Town-	
ship—	
Proceeds of	
Stands Sold	237 5 0
	10,502 6 6
Expended on	
Housing Scheme	
for Employees	3,000 0 0
	7,502 6 6
„ Mine Development and Equip-	
ment—	
Circular Shaft:	
As per Balance	
Sheet, 31st De-	
cember, 1916	59,164 4 2
Less Plant sold dur-	
ing the year	270 5 0
	58,893 19 2
Development—	
As per Balance	
Sheet, 31st De-	
cember, 1916	472,858 11 11
Equipment—	
As per Balance	
Sheet, 31st De-	
cember, 1916	961,950 16 4
Net expenditure	
during the year	29,653 15 4
	991,604 11 8
	1,523,357 2 9
	1,957,402 10 11
Carried forward	£1,957,402 10 11

City Deep, Limited—continued.

BALANCE SHEET. 31st DECEMBER, 1917 - continued.

Dr.			Cr.		
Brought forward	£1,875,402 10 11		Carried forward	£1,957,402 10 11	
To Government of the Union of South Africa "Annuity Account"—			By Shares and Interests in Co-operative Concerns at cost—		
For total amount payable (in twenty annual instalments of £6,560 each), as consideration for grant of undermining rights of Water-rights Nos. 353/4 and 329, Bewaarplaats No. 1011 and Machine Standa Nos. 335/43	131,200 0 0		Co-operative Exchange Yard, Ltd.—		
Less Annuities paid to 1st July, 1917, and proportion provided for period from that date to 31st December, 1917	49,200 0 0	82,000 0 0	80 £80 shares, £16 per share paid	£1,280 0 0	
		1,957,402 10 11	Rand Mutual Assurance Co., Ltd.—		
East Incline Shaft Sinking Suspense Account—			257 £10 shares, £6 per share paid	1,678 0 0	
As per Balance Sheet, 31st December, 1916	£2,500 0 0		Witwatersrand Native Labour Association, Ltd.—		
Less expended during the year	2,500 0 0		1,133 £1 shares, 12s. per share paid, and deposit of 25s. per share	2,096 1 0	
Sundry Shareholders—			Witwatersrand Co-operative Smelting Works, Ltd.—		
Unpaid and unclaimed dividends	292,253 17 3		1,825 £1 shares, 10s. 6d. per share paid	958 2 6	
Sundry Creditors—			Native Recruiting Corporation, Ltd.—		
Wages, stores, etc.	54,796 13 1		45 £1 shares, fully paid, and deposit of 5s. per native on the allotted complement	1,833 5 6	7,845 8 0
Union of S. Africa—Taxation under Income Tax Consolidation Act, 1917 (estimated)	73,294 0 0	128,090 13 1	Stores and Materials—		
Balance of Appropriation Account—		420,344 10 4	In stock	89,684 5 9	
Unappropriated		216,462 3 10	Advances on stores in transit	5,609 16 3	
NOTES.—There are further liabilities as under:—			Cyanide shipment detained in foreign port	491 14 7	
I.—On account of shares and interests subscribed for in co-operative concerns, viz.:				95,785 16 7	
Co-operative Exchange Yard, Ltd.—			Live Stock, Vehicles, etc.	700 0 0	
£64 per share uncalled on 80 shares	£5,120 0 0		Furniture, etc.	270 11 6	
Rand Mutual Assurance Co., Ltd.—			Plantations	2,491 13 9	99,248 1 10
£4 per share uncalled on 257 shares	1,028 0 0		Sundry Debtors and Payments in Advance		13,118 3 2
Witwatersrand Native Labour Association, Ltd.—					120,211 13 6
8s. per share uncalled on 1,133 shares	453 4 0		£50,000 British 5 per cent. War Loan, 1929/1947	47,500 0 0	
Witwatersrand Co-operative Smelting Works, Ltd.—			£35,207 Union of South Africa 5 per cent. Local Registered Stock, 1921/36	35,144 10 0	
9s. 6d. per share uncalled on 1,825 shares	866 17 6		Deposits, fixed and on call, bearing interest	384,571 3 6	
Native Recruiting Corporation, Ltd.—			Cash at Bankers and on hand	8,203 1 6	
Deposit Account, 15s. per native uncalled on complement	5,355 15 0		Gold Consignment Account	41,176 5 8	516,595 0 8
	£12,823 16 6				636,806 14 2
II.—For contracts open for the supply of stores, etc.					£2,594,209 5 1
	£2,594,209 5 1				

RAND MINES, LTD., Secretaries.

S. C. STEIL, Secretary.

To the Shareholders,
CITY DEEP, LIMITED.

AUDITORS' REPORT.

We have audited the Balance Sheet of the City Deep, Ltd., dated the 31st day of December, 1917, above set forth, and have obtained all the information and explanations we have required. In our opinion, such Balance Sheet is properly drawn up so as to exhibit a true and correct view of the state of the Company's affairs according to the best of our information and explanations given us and as shown by the Books of the Company.

E. A. WALLERS, Chairman.
W. DALRYMPLE, Director.CHAS. STUART
(Chartered Accountant).
C. L. ANDERSSON & CO.
(Incorporated Accountants).

Auditors.

City Deep, Limited—continued.

WORKING EXPENDITURE & REVENUE ACCOUNT for the Year ended 31st DECEMBER, 1917.

Dr.		Cr.	
To Working Expenditure at Mine—		By Gold Account—	
Vide Manager's Report	£784,176 3 6	Vide Manager's Report	£1,468,103 13 5
Less—			
„ East Incline Shaft Sinking Suspense Account—			
Portion of the cost of Incline Shaft sinking included in the above expenditure, the funds for which were provided in 1915 Accounts	2,500 0 0		
	<u>£781,676 3 6</u>		
„ General Expenses—			
Head Office—			
Salaries, agency fees and rents	9,106 19 10		
Stationery, printing, advertising, postages, and telegrams	1,555 5 4		
Directors' and Auditors' fees	3,625 0 0		
Licences	4,263 5 0		
Sundry	1,879 3 5		
	<u>20,429 13 7</u>		
	<u>£802,105 17 1</u>		
„ Credit Balance on Working for the year carried down	665,997 16 4		
	<u>£1,468,103 13 5</u>		
			<u>£1,468,103 13 5</u>
To Donations and Contributions to War Relief Funds, etc.	£3,350 3 9	By Balance brought down	£665,997 16 4
„ Miners' Phthisis Compensation Fund—Assessments	4,920 11 7	„ Profit from Accumulated Slimes	£7,738 5 0
	<u>£8,270 15 4</u>	„ Interest and Exchange	13,933 19 0
„ Credit Balance carried to Appropriation Account	682,019 12 5	„ Freehold Revenue	2,017 2 6
	<u>£690,290 7 9</u>	„ Sundry Revenue	583 4 11
			<u>24,292 11 5</u>
			<u>£690,290 7 9</u>

APPROPRIATION ACCOUNT.

Dr.		Cr.	
To Expended on Capital Account for year—		By Balance Unappropriated—	
Property, Development and Equipment	£32,146 5 4	As per Balance Sheet, 31st December, 1916	£211,214 12 2
Annuity in respect of undermining rights leased from Government	6,560 0 0	„ Balance of Working Expenditure and Revenue Account—	
	<u>38,706 5 4</u>	For the year ended 31st December, 1917	682,019 12 5
Less Amounts received under Be-waarplaats Moneys Application Act	10,265 1 6		
	<u>£28,441 3 10</u>		
„ Government Taxes—			
Union of S.A.—			
Taxation under Income Tax (Consolidation) Act, 1917 (estimated)	83,394 0 0		
Adjustment under previous Taxation Acts	777 4 2		
	<u>84,171 4 2</u>		
English Income Tax	1,315 19 10		
French Fiscal Taxes	343 12 11		
	<u>1,659 12 9</u>		
	<u>85,830 16 11</u>		
„ Dividend Account—			
Dividend No. 10 of 22½ per cent., declared 18th June, 1917	281,250 0 0		
Dividend No. 11 of 22½ per cent., declared 18th December, 1917	281,250 0 0		
	<u>562,500 0 0</u>		
„ Balance Unappropriated—			
Carried to Balance Sheet	216,462 3 10		
	<u>£893,234 4 7</u>		
			<u>£893,234 4 7</u>

RAND MINES, LTD., Secretaries.
S. C. STEIL, Secretary.

Johannesburg, 28th March, 1918.

E. A. WALLERS, Chairman.
W. DALRYMPLE, Director.
CHAS. STUART
(Chartered Accountant),
G. L. ANDERSSON & CO.
(Incorporated Accountants).
Auditors.

P.O. BOX 1553.

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THE SOUTH AFRICAN

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Notes and News.

A daily contemporary has just discovered that Mr. Wallers was not exaggerating when he said at the annual meeting of the Chamber of Mines "Sengite," the last month that "Messrs. Kynoch, Ltd., New Explosive. have produced a gun cotton explosive to take the place of gelignite; and I am very glad to say that we have tested this explosive and found it successful. Much credit is due to Messrs. Kynoch for their action in this matter." The new explosive is called Sengite, and it is expected to go far to economise gelignite, which, however, it cannot altogether replace.

The annual reports of the Miners' Phthisis Board and of the Miners' Phthisis Medical Bureau have reached us, and will be reviewed in our next issue. Meanwhile, it is noteworthy that General Botha has promised that the Miners' Phthisis Act Amendment Bill, which was introduced in the Assembly this week, will be passed this session. It consists of three clauses, which read as follows: (1) Whenever under Act No. 44 of 1916, as amended by Act No. 44 of 1917, the date "the first day of August, 1918," is mentioned that date shall be altered so as to read "the first day of August, 1919." (2) The provisions of Section 11 of Act No. 45 of 1916 (as set forth in Section 3 of Act No. 44 of 1917) are hereby amended by the deletion of paragraph (c) of Sub-section (1), and by the substitution thereof of the following paragraphs: "(c) to the dependents of deceased beneficiaries who have not received further awards under this Act or any amendment." (3) For the purpose of enabling the Board to grant benefits under Section 11 of Act No. 44 of 1916 (as set forth in Section 3 of Act No. 44 of 1917 and as further amended by this Act), it may appropriate a sum not exceeding £40,000 in all from the insurance fund in addition to any sums which it may appropriate for that purpose under Section 2 of Act No. 44 of 1916 as amended by Act No. 44 of 1917.

The first monograph of a series arranged by the Mineral Resources Committee of the Imperial Institute has just been issued. It deals with zinc, and will be found of more than merely technical interest. Indeed, the committee state that in issuing these monographs its aim is not so much to cater for the specialist as to diffuse knowledge of the Empire's mineral resources among those who control such resources and who sell and use the products to which they give rise, "in the hope that the dissemination of such information will lead to a greater utilisation of these resources within the Empire itself than has been the case in the past." It is well known that although the Empire produced large quantities of zinc ore before the war, nearly all was exported to Germany and Belgium to be smelted. Thus in 1913, although the Empire produced 20 per cent. of the world's output of zinc ores, its production of the metal (spelter) was only 6·4 per cent. of the world's total. Germany and Belgium, on the contrary, together produced about 48 per cent. of the world's annual supply of spelter, though they themselves contributed only 23 per cent. of the world's output of zinc ore, the rest of their supplies being obtained from Australia. The operations of the German Metals Combine to dominate the world's markets in zinc and other non-ferrous metals and the special action which has been taken with a view to preventing the resumption of its activities after the war are well known. Many interesting points are to be gleaned from a glance at the statistics, although some inevitably do not carry us beyond 1913.

The recent meeting of the Falcon Company in London emphasises the excellent position which this company has attained. The average price got for copper during the year was £112 17s. 10d. per ton; but, as the American Government has fixed the price for copper in the United States, where the company's output is sold, at 23½

cents per lb., future shipments will only realise about £98 per ton. The decrease in price should, however, be more than compensated by the larger quantity produced. One of the most encouraging references was with regard to the quantity of ore disclosed in the 9th level, which is estimated to be 255 feet in length, with an average width of 52 inches. On this level 287,000 tons of ore has been opened up of an average value of 39s. 2d. per ton, taking copper at £50, while 52,500 tons of somewhat lower grade ore was developed, which have not been taken into the ore reserves. On the 10th level the estimated length of the ore body is 200 ft., but the width has increased to 65 ft. The board is hopeful that exploration work will disclose an extension of the lode. It may be assumed that such a statement would hardly have been made had there not been some indication favourable to the theory that a further pay body may be locatable. As the lode is dipping so much to the westward the sinking of a shaft from the 11th level is contemplated. Owing to the heavy floods at Beira, and the consequent difficulty in getting up supplies, the outputs for the next month or two may be adversely affected. The board has not overlooked the possibilities of something good existing in the Athens mine, a certain amount of prospecting there now being in hand.

* * * *

The Imperial Government's appeal for economy in coal and the appointment of the Departmental Committee on Electric Power Supply open the larger question of the conservation of power in general, to the consideration of which question the Empire

The Waste of Valuable Coal By-Products.

Resources Development Committee now makes an important contribution on the low temperature distillation of coal. It is estimated that of the 270,000,000 tons of coal produced in the United Kingdom about 40,000,000 tons are consumed annually for domestic purposes, being burnt in open grates. So wasteful is this use of raw coal that Professor Armstrong and other well-known authorities on coal by-products advocate compulsory powers for coal consumers. Not only are the whole of the by-products (worth many millions sterling) absolutely lost, so far as utility and profit are concerned, but also, by descending in the form of smoke, fog and soot, they pollute the atmosphere and add enormously to civic expenditure. The Empire Resources Development Committee claims that if this domestic fuel were carbonised it would secure—to mention one item alone—120,000,000 gallons of motor spirit, of which the annual consumption at present approximates to 100,000,000 gallons, all imported. The Committee mentions the experience of a company brought into existence for the express purpose of experimenting in low temperature distillation. The company's history has been somewhat chequered, but after a series of interesting experiments, carried out in the face of intense opposition and involving an expenditure of nearly a million sterling, information of an invaluable nature has at length been gained, and a carbonising plant, absolutely standardised and fitted with every improvement which science can suggest, will shortly be in operation. The following data based upon this company's experiments will illustrate the importance of the proposal:—Products from carbonising 200 tons of coal, plus 40 tons of slack or washery coal for heating and mixing purposes: (1) Smokeless fuel, 124 tons; (2) breeze, 16 tons; (3) sulphate of ammonia, 3½ tons; (4) benzol (for motors, aeroplanes, etc.), 662 gallons; (5) toluol (for high explosives), 182 gallons; (6) xylol (for high explosives), 41 gallons; (7) solvent naphtha (for rubber solvent, varnishes, etc.), 63 gallons; (8) heavy naphtha (for lamps, etc.), 165 gallons; (9) carbolic acid (for high explosives), 48 gallons; (10) cresylic acid (for high explosives), 507 gallons; (11) creosote oil (for timber pickling, etc.), 460 gallons; (12) lubricating oil, 180 gallons; (13) Diesel oil, 190 gallons; (14) pitch (for insulation and briquetting), 9 tons; (15) gas (300 b.Th.U.), 5,600,000 c.ft.; (16) gas (140 b.Th.U.), 4,900,000 c.ft.; (17) ethylene tetra-chloride for later trials. The Committee recommends that the State should become a partner in this promising development and receive towards the liquidation of the war debt some of the huge profits likely to accrue.

The official rules for trading in tin on the London Metal Exchange are now published, and state the following:—

New Rules of Tin Dealings.

(1) Importers and dealers may only sell in the United Kingdom against purchases in the East and elsewhere already shipped or to be shipped to the United Kingdom. They may only buy in the United Kingdom for account of or against sales made to consumers or dealers in the United Kingdom or against sales made for shipment from the United Kingdom or against tin lost in transit to the United Kingdom. (2) Smelters may only sell in the United Kingdom against purchases of ore or against English tin produced or in course of production. They may only buy in the United Kingdom against actual sales of English tin not already covered by ore or tin produced or in course of production. (3) Without written permission from the committee brokers may only execute orders for account of importers, dealers, smelters, or consumers who have given them a written undertaking to abide by these regulations. Under no circumstances may brokers, dealers, importers, or smelters execute orders for shipment from the United Kingdom unless there is reasonable prospect of export license being obtainable, and the weekly returns which in future are to be made to the Metal Exchange authorities must state the total quantities sold for export from the United Kingdom for which licenses to export have not been received and also the destination. (4) Consumers may only buy for their own requirements, and may not resell without written permission from the committee. (5) Notwithstanding the above restrictions importers, smelters and dealers are to be allowed to replace sales or purchases in other positions in the United Kingdom and for the purposes of normal trading to carry stock or to go short to a maximum quantity sanctioned by the committee in the case of each individual firm, but in no case shall this quantity exceed 100 tons.

The method of arriving at the balance of any firm's position has (according to *The Times*) been clearly defined; also the style in which the weekly return to the Metal Exchange must be drawn up. The first return had to be made up to Saturday, 23rd February, and to be delivered to the secretary by Tuesday, 26th February. It is also provided that the Committee shall appoint two members of the Exchange, who shall not be large dealers in tin, to examine the books of any firm the Committee suspect of a breach of their regulations, and if such breach is proved the firm is to be suspended from dealing in tin for such period as may be decided.

* * * *

A good deal has been written deploring the complete lack of standardisation in mine accounts, and the apparent absence of any desire on the part of anybody, except possibly the shareholders, that something approaching uniformity should be achieved. To the man in the street (says the *S.A. Accountant*) it must seem extraordinary that while in all technical departments a high degree of standardisation has been brought about, the financial department, the controllers of which should, one would imagine, be the first to appreciate the advantages of uniformity, are the last to make any move. The reason why standardisation of mining and metallurgical practice has been attained in so high a degree rests simply in the keen desire of our engineers and chemists for economy and efficiency. A bright idea of a colleague—or even a rival—is copied only if it tends to better results. The point is that the idea is not “turned down” on the ground that it was first conceived on another property or by an official of another group. The result is that a mining or metallurgical man can go from one mine to any other in any capacity and take over his new duties without losing an hour. An office official—head office or mine—if his activities are transferred to another group, or sometimes to another office in the same group, may find himself in a foreign atmosphere. It is not only for this reason that standardisation is advocated. It would obviously be more satisfactory from a shareholder's point of view if all accounts were arrived at in the same manner and presented in the same way, and if such expressions as “mining,” “development,” “reduction,” “general expenses,” etc., possessed the same significance in the published accounts of various mining companies. A minor advantage—though still an important one—is the enormous saving in stationery, printing, and labour which would accrue if uniform methods were adopted, and if there were such a free interchange of ideas as would result in the adoption of the best ideas and methods without regard to their source.

TOPICS OF THE WEEK.

THE LOW GRADE MINES.

ALTHOUGH the present session of the Union Parliament is drawing rapidly to its close, there does not seem to be any disposition on the part of the Government to discuss the pressing problem of the low-grade mines. A summary of the report of the Select Committee on the question was printed in our last issue, and the complete report is reproduced in this issue. The blue book containing the evidence given before the Select Committee is also now available, and should be studied by everyone to whom the immediate future of the Rand is a matter of concern. If the Municipalities and other public bodies on the Reef want to know the facts they have them only too clearly set forth in the printed evidence. It is admitted that, if any considerable number of low-grade mines were to close down permanently, the loss, not only to the proprietors but to the public revenue and to labour, would be very serious. Mr. Leslie, in his evidence, took eight low-grade mines, which, in the six months ending November 30th, 1917, crushed at the rate of $4\frac{1}{2}$ million tons at a profit of only 5d. a ton: the cost of extracting about one million ounces of gold per annum being about $4\frac{1}{2}$ millions sterling. Mr. Leslie estimates that of this $4\frac{1}{2}$ millions sterling something like half goes to the public revenue in direct or indirect taxation, railway rates, indirect taxation on stores consumed by the mines, and so on: but clearly, if these mines were to be abandoned while they have yet some years to run, the country would be a heavy loser. Taking the average life at seven years, which Mr. Leslie evidently regards as a moderate estimate, the Union's purchasing capacity would be reduced to the extent of thirty millions sterling, the value of the gold which would be extracted during that period. Or, to put it in another way, after making allowance for profit, something between 29 and 30 millions sterling less would be spent by the mining industry in one way or another. Moreover, 3,572 white miners and 30,318 natives would be compelled to find work elsewhere: which, in the case of the whites, at all events, would be all the more difficult because many of them are replacing men at the front, for whom the industry is pledged to find employment when they return. To meet the difficulty, two proposals are offered from the side of the mining industry. The Chamber of Mines (with the exception of the Consolidated Goldfields) advocate the temporary closing down of some six of the poorer mines by agreement, the Government to grant the companies concerned a subsidy which would enable them to continue pumping operations and to maintain the plant when shut down, so that when normal conditions return, these mines may resume operations. Meanwhile, the richer mines would be enabled to fill up their native labour complement and to utilise the available supply of explosives to the best advantage. The high grade ore of the remaining mines would give an increased yield, in response to the additional energy expended, at least equal to the present output of the mines which were closed. The annual subsidy required to carry out this scheme would be about £150,000 a year. The representatives of the Consolidated Goldfields, on the other hand, object to closing down at all. "It is doubtful if any of them could be reopened advantageously to shareholders. In addition to making up for deterioration in surface and underground maintenance, and incurring the cost of recapturing the underground water position, the attempt successfully to restart any of these mines would probably involve the replacement of selected plant, equipment and stores taken from them, to force the rate of production of high grade mines, besides great cost and loss of time in getting back to full production and efficiency with a new labour force." There is, also, a difference of opinion between the Chamber of Mines and the Consolidated Goldfields as to the probable absorption of white and native employees who would be released on the closing down of low-grade mines. The Chamber's estimate is that, if six selected mines were closed down "the native labour at present employed by these

mines, and the majority of the white employees would be absorbed by other mines." Mr. Leslie, on the other hand, selects eight low-grade mines and calculates that, if they are shut down, only 16 per cent. of the white miners and 28 per cent. of the natives are likely to be absorbed in increasing the production of the rich mines. The Goldfields representatives came to the conclusion that the "obvious business course for the Union Government is to relieve such mines (i.e., the low-grade mines of a portion of their present overwhelming load of indirect taxation and war burden. By the remission of an average of about 2s. per ton crushed, the position of these mines would be rendered much more secure." In reply to this, the Select Committee's report remarks, any sort of Government subsidy "would constitute a bad precedent," which it "would be very difficult to keep within reasonable limits." In the circumstances, this argument seems very weak; and, as we said in our last issue a careful study of the evidence led before the Select Committee cannot fail to engender in members of Parliament a more sympathetic attitude of mind than that shown by the Select Committee. But the chief question now is: when will Parliament be given an opportunity to discuss the whole matter?

In the April number of the *S.A. Journal of Industries*, the organ of the Department of Industries, Dr. P. A. Wagner continues his "Report on Certain Minerals used in the Arts and Industries," dealing on this occasion with mica. The commercial varieties of mica, the principal producing countries, the dressing and preparation of mica, its commercial uses, valuation and prices, are discussed in turn. A survey of the mica deposits of South Africa is followed by a discussion of the position and possibilities of the South African mica industry. The author considers that, in view of what was accomplished in (German) East Africa before the war, and in the United States in recent years, there is no reason why the local product should not compete successfully with the imported, provided (a) that a suitable class of native labour be obtained, and (b) that some use be made of the enormous quantities of mica scrap produced on the Leydsdorp fields. In an article on the flaying and branding of South African hides, some interesting views of tanners are given on the question of the damage done to hides by careless flaying and the present method of branding. It is stated, in an introductory note, that the problem has become so insistent, under the stress of modern competition, that the matter has been taken up by the Industries Advisory Board, in consultation with the Department of Agriculture, with a view to ascertaining what remedial measures can be adopted. As a preliminary step, the views of leading tanners have been obtained, and the summary of these, consisting as it does of a wholesale condemnation of the present methods, plainly indicates the necessity for early action in this regard. The first instalment of a useful article by Mr. C. Williams, Chemist at the School of Agriculture at Cedara (Natal), on "South African Tanning and Dyeing Materials," deals with the history of the black wattle industry, the consumption and use of the bark in South Africa, and the export trade, suitable localities for production, the extent of production method of culture and drying of the bark, and the preparation of the bark for shipment. "Tartaric Acid and Other By-Products of the Wine Industry" is the subject of an article from the pen of the late Professor P. D. Hahn, whose death was recently announced, and appreciation of whose work finds a place elsewhere in the *Journal*. The current instalment of Dr. Juritz's report on the possibilities of paper-making in the Union is a continuation of his discussion of the technical aspect of the question, including particulars of the cost of machinery. Other articles are a report on the recent annual meeting of the Chamber of Mines, another instalment of Mr. H. W. Taylor's "Cotton and Cotton-seed Products," and a report on the last meeting of the South African Committee of the Imperial Institute. The second feature is a useful statement as to the facilities which are available to the public for the examination of natural products, as well as for tests of manufactured materials.

POSITION AND PROSPECTS OF THE NEW KLEINFONTEIN.

Points from the Annual Report for the Year 1917.

In his annual report for 1917 on the New Kleinfontein, Mr. E. J. Way writes:—For full details of the general operations, I beg to refer you to the manager's report, wherein all important matters pertaining to the running of the mine are very carefully set forth. The principal features with which I propose to deal are as follows: (1) Results of development; (2) Future mining policy; (3) Results from reduction works; (4) General labour position; (5) General conclusions. (1) Results of development: The annual re-estimation of the ore reserves shows that on the old basis you had 2,894,000 tons of an average value of 5.24 dwts. over 60.42 inches mining width. As compared with the total ore reserves at the end of the preceding year, there is a decrease of 50,000 tons, a decrease in grade of .13 dwt., and a decrease of .44 inches in stopping width. It became necessary at the end of the year to re-consider the ore reserve position, taking into consideration the increase in working costs. Owing to this increase it has been deemed advisable to deduct 680,000 tons, temporarily reducing the total to 2,214,000 tons having a value of 5.64 dwts. over a stopping width of 60.76 inches mining width. As working costs again approach the normal, the tonnage above referred to can be re-transferred to the payable reserve. (2) Future mining policy: There has been no change in the general policy laid down in 1914. The manager gives full details of the shaft-sinking and development work accomplished under this programme, which, when the labour position is taken into account, may be considered satisfactory. (3) Results from reduction works: The manager states the results collectively from the two plants. The Apex plant became thoroughly conditioned during the early months of the year, and the combined extraction from the two plants was 96.22 per cent. as compared with 94.54 per cent. of the gold in the ore treated in the previous equal period. (4) General labour position: Owing to the lack of native labour the plants have dealt with a tonnage equal to only about 75 per cent. of their full capacity. (5) General conclusions: Development in the Old Kleinfontein section should be entirely completed some time during the year 1920, and the supply of ore for reduction purposes from this section will gradually decrease until that year, when from 40,000 to 45,000 tons per month will be available from this section, gradually becoming less in further periods. Therefore a gradual increase in tonnage will be required from the western or Apex section. The general future of the mine, therefore, depends upon the value of development in that section. The encouraging features mentioned by me last year as disclosed in the 5th level of No. 7 shaft, are still under close investigation, and a fair section of payable ore has been opened up above this level, right up to the first level. The 6th level has encountered satisfactory values in the same shoot as was encountered in the 5th level, and should values be encountered where expected in the 7th, 8th, 9th and 10th levels now in course of operation, the prospects of this section of the mine maintaining the position, are reasonably hopeful so far as average grade conditions are concerned. The abnormal rainfall which commenced in the month of November considerably hampered operations at the end of the year, the amount of water which has had at times to be handled at the Central main shaft being on occasion seven times the normal amount. Increases in working costs due to the abnormal cost of stores and to the increase in white wages, and to the unsatisfactory position generally of the native labour supply, have all tended to reduce the profit-earning capacity of the venture; and it is practically impossible from a technical point of view to foresee when this upward tendency will reach the maximum. In the meantime the position is one of grave concern, not only with regard to the profitable operations of the company's mine, but for the whole of the mines of the Witwatersrand.

MANAGER'S REPORT.

The Manager, Mr. E. H. Bulman, writes *inter alia*—

MINING EASTERN SECTION—No. 1 SHAFT.—Permanent Works: No work of a permanent nature was undertaken in this shaft during the year. It may be necessary to sink the shaft a further 50 feet to give clearance to the main ore bin on 26th Level when completed. **Development:** The development footage amounted to 5,381 feet. A long winze is being sunk from the 22nd Level in the Orient Section to connect with the main cross-cut, which it is proposed to carry along the boundary from the 26th Level. The values encountered so far in the winze are unpayable. The 24th and 25th Levels are being carried well into the Orient Section of the mine.

MINING EASTERN SECTION—No. 2 SHAFT.—Permanent Works: The 20th Main Haulage West intersected the reef on the west of the large dyke, and it is now being carried as a drive on reef. The electric motor has been working in this haulage for some time, and has given very satisfactory results. The eastern extension of the haulage to No. 1 Shaft is gradually being put in order for the time when it will be necessary to transport ore from No. 1 to No. 2 Shaft underground. **Development:** Development is finished in this shaft with the exception of the 20th Drive West (extension of Main Haulage), which is now opening up the deep levels of No. 3 Shaft. This drive is exposing ore of good value beyond the large dyke. 955 feet of development were accomplished in No. 2 Shaft during the year.

MINING EASTERN SECTION—No. 3 SHAFT.—Permanent Works: The Fan Chamber on the 16th Level was completed and the Turbon Fan installed towards the end of the year. This fan draws the air from the lower levels of No. 2 Shaft and exhausts it into No. 3 Shaft (upcast). **Development:** During the year 174 feet were accomplished. This practically completed the development in this shaft, which has since been closed down, as it was found more economical to transfer the ore from this section underground to No. 2 Shaft.

MINING CENTRAL SECTION—No. 4 SHAFT.—Permanent Works: No. 4 Shaft was sunk 128 feet, and shaft ore bins were completed on the 12th and 13th Levels. **Development:** 4,113 feet were accomplished in this shaft. The 12th, 13th and 14th Drives are being pushed west to prove the pay chute existing on the higher levels, and the 13th Level East will soon be connected with the 13th Level East from No. 3 Shaft. The 14th Drive East is also being carried to meet 14th Level from No. 3 Shaft.

MINING CENTRAL SECTION—No. 5 SHAFT.—Mining operations were pursued on a limited scale in this shaft up to the end of June, since when the shaft has been closed down, as it is the intention to mine the ore in this area from Nos. 4 and 7 Shafts. 542 feet of development were accomplished.

MINING CENTRAL SECTION—No. 6 SHAFT.—There were no mining operations in this shaft during the year, although in the area covered by this shaft in the Benoni Section, stopping operations have been carried on from the No. 7 Shaft (Apex). The No. 6 Shaft forms the upcast and second outlet for the No. 7 or Apex workings, and a large fan with a capacity of 200,000 cub. ft. per min. has been permanently installed on the surface, which is very efficiently ventilating the Western Section of the mine.

MINING WESTERN SECTION—No. 7 SHAFT.—Permanent Works: The New Subsidiary East Incline Shaft from the 5th Level was sunk 859 feet during the year. It is now below the plane of the 10th Level, the station for which is now being cut. From this level it is proposed to put in a Main Haulage East and West, to handle all the ore above the 10th and below the 6th Levels. The 6th Main Haulage is now 2,260 feet west of the shaft, having been extended 1,745 feet during the year. The equipment of the Main Ore Bin for this haulage was completed, and the delivery of rock from the haulage through the bin on to the conveyor belt in the Main Incline Shaft was commenced during the year, and the arrangements are working very successfully. One of the permanent electric winders for the new East Incline Shaft was installed, and has been working satisfactorily for some months. **Development:** A total of 8,717 feet was accomplished during the year. Faults, and the very hard microgranite dyke referred to in last year's report, have again retarded the progress of development. The 3rd Level West has encountered faulted ground during the year, and the values disclosed were unpayable. The 5th Level West, which is the main prospecting drive, had advanced to 1,800 feet west of the shaft, and for approximately 600 feet the ore exposed was payable, but the last 350 feet have exposed unpayable ore. The 6th, 7th, 8th and 9th Levels are being driven as rapidly as possible towards the payable ground exposed by the 5th Level. The main winze on the 3rd Level East near to the Van Ryn Deep boundary has not been sunk further during the year, owing to the scarcity of native labour, but arrangements are being made to continue this winze during 1918. The intermediate drives from this winze on the plane of the 6th Level have been advanced eastwards, which exposed payable ground, and westwards, exposing unpayable ground.

Reclamation (Eastern Section only).—The tonnage derived from this source was 162,423 tons, an increase of 37,693 tons over last year. **Sand Filling.**—Sand filling operations have been intermittently carried on in the old workings between No. 1 and No. 2 Shafts. 64,000 tons were put into the mine, in addition to 3,000 tons tipped down the open workings from the sands dump. During the latter end of the year this work has been interfered with by the heavy rains

flooding the mine, making it difficult to cope with the quantity of water used for carrying the sand underground. *Ore Reserves.*—According to the annual re-estimation, the payable Ore Reserves on a mining basis at the end of December, 1917, were as follows:—Eastern Section (New Klein.), 1,439,000 tons, stopping width 61·15 inches, stopping value 5·71 dwts.; Central Section (Benoni), 342,000 tons, stopping width 55·94 inches, stopping value 5·42 dwts.; Western Section (Apex), 433,000 tons, stopping width 63·71 inches, stopping value 5·59 dwts.; total, 2,214,000 tons, stopping width 60·76 inches, stopping value 5·64 dwts. Total Revenue and Working Costs for twelve months ended 31st December, 1917 (785,090 tons milled):—

Working Costs—	Amount.	Per ton milled.
Mining and Hauling	£169,675 6 9	£0 11 11·578
Development to Working Costs ...	68,695 7 6	0 1 9·000
Crushing, Sorting and Conveying ...	33,135 1 0	0 0 10·129
Stamp and Tube Milling	73,599 15 5	0 1 10·500
Sands and Slimes Treatment	69,445 4 9	0 1 9·229
General Charges	61,731 8 9	0 1 6·871
Total Working Costs	£776,252 4 2	£0 19 9·307
Total Working Profit	216,259 3 5	0 5 6·119

Net Working Revenue £992,571 7 7 £1 5 3·426
The Working Costs for the year show an increase of 10·462d. per ton milled over the previous year, which is due chiefly to the further increased prices of stores and materials, owing to war conditions and the payment of additional war bonus and higher wages to married and other employees. A comparison of the year's costs with the year 1914

shows an increase of 2s. 2·120d. per ton, but as the estimated increase per ton due to war conditions is 2s. 5·998d., the costs in normal times would show a reduction of 3·878d. per ton. The costs have been adversely affected also by shortage of native labour during the latter half of the year, necessitating the breaking of a higher percentage of rock by machine work in the mine, in which the natural conditions make it far more economical to use hand labour. It is worthy of mention that with an increased tonnage of 54,270 tons, and an increased revenue of £100,470, the profit for 1917 only exceeded that of the previous year by £13,350. The charge for development remained at the flat rate of 1s. 9d. per ton milled for the year. The whole of the machinery and plant has been properly maintained in good working order. Additions during the year have consisted of the installation of two three-throw electric pumps for mine drainage, and an air cooling and purifying apparatus for the compressor plant. The Central Steaming Plant, which was becoming overloaded, has been satisfactorily relieved by the installation of three rotary converters, by which the power for a considerable amount of the direct current used is now obtained from the power station. The health of the natives has been excellent during the year, the death-rate from sickness being an average of only 5·45 per 1,000. The supply of native labour has been very inadequate, with the result that the plant has dealt with a tonnage equal to only 75 per cent. of its full capacity. The health conditions underground have been greatly improved by the installation of the ventilating fans mentioned above, and energy and expense have not been spared in an endeavour to still further improve these conditions. The chief features of the year's work have been the shortage of native labour and the gradually increasing costs, and strenuous efforts have been made to economise as much as possible.

THE OUTLOOK FOR THE SIMMER DEEP.

In his report for 1917, Mr. C. D. Leslie, the Consulting Engineer of the Simmer Deep, writes:—Revenue and working costs were higher by 11·930d. and 1s. 6·699d. per ton respectively, the latter being affected by increases of 6·875d. and 4·127d. per ton milled in expenditure on mine development and on renewals and replacements of machinery. The net result was a decrease in profit of £27,969 18s. 6d. But for the decrease in crushing of 140,900 tons as a result of the serious average decline of 807 natives, the profit from treating higher grade ore would have been more than maintained at the level of the previous year notwithstanding the increased expenditure due to the war. From the middle of the current year it is expected that an average appreciation of fully 1s. per ton will take place in the recovery value of the ore to be milled, and the hope is that there will be an improvement in the native labour supply so as to increase the rate of crushing. The present ore reserve, excluding the tonnage developed in the 30·6 claims acquired by The Simmer and Jack Proprietary Mines, Ltd., is estimated at 1,097,000 tons of fully developed ore of an average mine value of 4·83 dwts. and 146,000 tons of partially developed ore of an indicated mine value of 4·59 dwts., being a decrease of 149,000 tons in the fully developed

reserve, and an improvement of 27 dwts. in value. Owing to increased working costs due to the war, some 91,000 tons of low-grade ore are excluded from this estimate. Development work in the lower levels continues to expose a grade of ore above the present average of reserves. The sampling of a continuous length of 1,400 feet of Main Reef driving on the 22nd level between the Milner and Clement shafts, most of which was done during the past year, showed a reef channel of 57 inches, averaging 6·2 dwts. per mine ton. In this section three winzes sunk from this level showed the same width of reef channel, assaying 6·3 dwts. per mine ton, for a distance of 500 feet sampled. As indications point to the continuance of better values, it is expected that the mine will improve its ore reserve position during the current year, provided the position with regard to supplies and explosives is such as to permit of maintaining last year's rate of development. Improved winding arrangements for the Milner and Clement incline shafts are approaching completion. It is unfortunate that on account of the shortage of labour and increasing disabilities due to the war better advantage cannot be taken of the improving grade. The Superintending Engineer and myself are well satisfied with the efforts made by the manager and his staff to work the mine skilfully and economically.

COMPANIES PLACED IN VOLUNTARY LIQUIDATION.

- 4649 Entente Gold Mining Company, Ltd., Johannesburg; capital, £30,000.
- 5146 Eastern Motor Corporation, Ltd., Johannesburg; capital, £1,000.
- 4225 Langverwacht Estate, Ltd., Johannesburg; capital, £1,500.
- 2553 The Tramway Exchange and Mart, Ltd., Johannesburg; capital, £3,000.
- 3154 The Rand Machinery Syndicate, Ltd., Johannesburg; capital, £5,000.
- 4065 Leon Levison Studios, Ltd., Johannesburg; capital, £600.
- 5185 Burnetts, Ltd., Pretoria; capital, £300.
- 5387 Broad Roberts, Ltd., Johannesburg; £3,500.

NOTICES OF CHANGE OF ADDRESS.

- 3657 Mann, George & Company (Delagoa), Ltd., 17, London House, Loveday Street, Johannesburg.
- 5022 G. W. Sheshan & Company, Limited, 17, London House, Loveday Street, Johannesburg.
- 5405 Glenn & Company, Ltd., 17, London House, Loveday Street, Johannesburg.
- 4241 Germolin, Ltd., 20, London House, Loveday Street, Johannesburg.
- 5434 Hamilton House, Ltd., 20, London House, Loveday Street, Johannesburg.
- 4312 American Novelty Company, Ltd., 52, Sauer's Buildings, corner Loveday and Market Streets, Johannesburg.
- 4384 Linoleum House, Limited, 76b, President Street, Johannesburg.

- 5111 Valley Orchards, Ltd., Royal Chambers, Simmonds Street, Johannesburg.
- 5126 Equitable Building Society, Ltd., 17-18, S.A. Mutual Buildings, Harrison Street, Johannesburg.
- 5407 Wings, Ltd., 17-18, S.A. Mutual Buildings, Harrison Street, Johannesburg.
- 5429 Premier Chicory Company, Ltd., 4, Minnaar Street, Newtown, Johannesburg.
- 5439 Huggins & Company, Ltd., 208 and 209, Consolidated Building, Fox and Harrison Streets, Johannesburg.
- 1707 Rand Nucleus Gold Mining Company, Ltd., 107-110, Exploration Building, Commissioner Street, Johannesburg.
- 4762 Ophir Estates, Ltd., 56, Pim Street, Newtown, Johannesburg.
- 5149 Rand Coal Agency, Ltd., 11, Moseley Buildings, President Street, Johannesburg.
- 4283 Crédit Mobilier Français, c/o E. Renaud, 107-110, Exploration Building, Commissioner Street, Johannesburg.
- 4350 Witfontein Estates, Ltd., Royal Chambers, Simmonds Street, Johannesburg.
- 5162 Lesser Mineral Trust, Ltd., 243, Pretorius Street, Pretoria.
- 5423 Eleanor, Ltd., 39, Bree Street, Johannesburg.
- 4870 S.A.I.F. Co-operative Development Co., Ltd., c/o J. Glen Davidson, 60, Rissik Street, Johannesburg.
- 2821 Benoni Real Estate Syndicate, Ltd., 60a, Cranbourne Avenue, Benoni.
- 4544 Driefontein Trading Company, Ltd., 58, Main Reef Road, Denver.
- 5146 Eastern Motor Corporation, Ltd., 63, Market Street, Benoni.

THE ANGLO AMERICAN CORPORATION AND THE RIETFontein WEST LEASE.

Technical Details of the Tender—Scheme of Exploitation and Equipment.

In a circular issued on March 23 the Acting Chairman of the Anglo American Corporation of S.A., Mr. F. R. Lynch, writes that in response to Government Notice No. 1586, dated the 20th November, 1917, the directors, acting on behalf of shareholders, tendered for the lease of the mineral rights of the western portion of the farm De Rietfontein No. 14, in extent about 2,236 claims, which tender has been provisionally accepted by the Government, subject to the completion of the lease. A report is attached by Mr. C. E. Knecht, Consulting Mining Engineer, showing briefly the technical details of the tender, from which it will be seen that an amount of approximately £1,400,000 will be required to carry out the proposed scheme of exploitation and equipment, viz.:—For shaft sinking and preliminary development, £650,000; for equipment to the producing stage, including the erection of a reduction plant with a capacity of approximately 1,000,000 tons per annum, £750,000; total, £1,400,000. It is proposed to form a new limited liability company, with a capital of £1,400,000, divided into 1,400,000 ordinary shares of £1 each, for the purpose of carrying out the terms of the lease. The whole of the shares will be subscribed for or guaranteed by the Corporation; 400,000 will be made fully paid upon the registration of the company, and as to the remaining 1,000,000, 2s. per share will be paid on registration and the balance of 18s. per share as and when required by the company for carrying out the obligations of the lease or earlier at the option of the corporation. Of the 400,000 fully paid shares, 200,000 will be offered to the public in South Africa, at par, as soon as possible after the signing of the lease. An agreement has been entered into with Springs Mines, Ltd., under which that company will grant mining facilities—including the partial use of the shafts and certain levels of Springs Mines—for the purpose of expediting the development of the lease area. The consideration payable to Springs Mines, Ltd., for these facilities is an option for two years from the date of the registration of the new company or one year after the formal declaration of peace (whichever is the later) to purchase 150,000 ordinary £1 shares in the new company at 22s. 6d. per share. As consideration for subscribing and/or guaranteeing the subscription of the whole of its initial capital, a commission of 5 per cent. will be paid by the new company to the corporation on the amount of actual cash raised from time to time.

MR. KNECHT'S REPORT.

Mr. C. E. Knecht writes:—I herewith beg to submit a brief description of the proposed scheme for working the Government lease area comprising the western portion of the farm Rietfontein No. 14. Shafts and connections: It is proposed to at once sink two shafts, Nos. 1 and 2, six thousand feet apart. No. 1 shaft will be located at a point 4,000 feet west of the Springs Mynpacht boundary. This position will enable the connection with the west haulage from Springs Mines to be effected by the time the shaft reaches the reef horizon. The depth of No. 1 shaft is estimated at about 3,800 feet, and under average conditions it should be completed in less than four years. No. 2 will be the main shaft around which the reduction plant will be assembled. The estimated depth of this shaft is somewhat over 4,000 feet, and it should reach the reef horizon about six months later than the No. 1 shaft. The two shafts will be connected by a main haulage way, from which lateral haulages will give access to the workings of Springs Mines. Development: An agreement has been entered into with Springs Mines, Ltd., whereby facilities have been granted for the immediate development of the lease area. At the present time the western headings of Springs Mines, particularly the west haulage, south shaft, are approaching the western boundary of the mynpacht, and it is therefore only

necessary to advance these headings to enter and develop the lease area. By the adoption of the development proposals contemplated, it will be possible to rapidly develop the lease area at once, and large ore reserves will have been established by the time the shafts are completed, which will enable crushing to begin as soon as the shafts are available for hoisting. It is estimated that milling should take place about two years sooner than if the lease area were worked by a company which could not start development until shafts had been sunk. Milling capacity: The milling capacity of the lease area will depend upon the reef conditions met with. Under the proposals outlined, large tonnages can be dealt with if development warrants. It is proposed to provide a reduction plant capable of dealing with 1,000,000 tons per annum, this being, of course, contingent upon development in the meantime opening up ore bodies to warrant this capacity. Capital expenditure: The capital expenditure required for shaft sinking and development is estimated at £650,000, and for equipment, etc., a further £750,000. A considerable saving in capital outlay—particularly in respect of initial development—will be effected by starting the development of the lease area almost immediately through the working arrangement with Springs Mines. Government's participation in profits: (a) During the profitable life of the property the Government will share in profits (as defined in the Mining Taxation Act (No. 6) of 1910)

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according to the following formula: $y = 65 - \frac{x}{x}$ where x

is the ratio of profit to recovery expressed as a percentage, and y is the percentage of profit payable to Government. (b) In addition, any taxation that is now or may hereafter be imposed by statute on mining. The Government's participation (exclusive of taxation) for various ratios of net profit to recovery is as follows:—Up to 10 per cent., nil; up to 15 per cent., 21·7 per cent.; up to 20 per cent., 32·5 per cent.; up to 25 per cent., 39·0 per cent.; up to 30 per cent., 43·3 per cent.; up to 35 per cent., 46·4 per cent.; up to 40 per cent., 48·8 per cent.; up to 45 per cent., 50·6 per cent.; up to 50 per cent., 52·0 per cent.; up to 55 per cent., 53·2 per cent.; up to 60 per cent., 54·2 per cent. It will be found upon analysis that the sliding scale provides for increased profits earned in consequence of a reduction in working costs being divided in the proportion of 65 per cent. to the Government and 35 per cent. to the company, whilst of increased profits due to increased yield, the Government will receive 58·5 per cent. and the company 41·5 per cent.



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THE POSITION OF THE GEDULD.

Annual Reports for 1917.—Good Prospects of Further Increase in Profits.

Mr. P. M. Anderson, the Consulting Engineer to the Geduld, in his annual report for 1917, writes:—Construction work in connection with the additional ore reduction plant was sufficiently advanced to enable it to be brought into commission on the 15th March. Immediately thereafter the renovation of the foundations of the old stamp battery was taken in hand, consequently it was only possible to run 80 stamps for the remainder of the year. The full battery of 100 stamps was put in commission on 23rd January, 1918. The indications are that the nominal capacity of the whole plant, namely, 40,000 tons per month, will be exceeded by at least 10 per cent., due partly to the renovation of the older portion of the plant. The tonnage of ore milled during the year was 425,550, being an increase of 102,570 tons on the previous year. The yield from gold was 29s. 8d. per ton milled, which is 1s. 7d. per ton less than last year. This is partly due to the slightly lower value of the ore reserves and partly to absorption of gold in the new plant. The decreased yield was more than offset by a reduction in working costs of 1s. 11d., so that the resulting profit per ton, which averaged 10s., showed an increase of 4d. The total profit from gold was £212,838, being an increase of £57,207 for the year. The addition of sundry revenue amounting to £8,368 brings the total profit to £221,206. The effect of the war on the cost of mining supplies became more marked during the year. The cost of stores, gold realisation charges, war bonuses and payments to dependents of employees on active service, charged to working costs, including development, in December, 1917, was £5,145, or 2s. 8d. per ton greater than would have been the case in June, 1914. The quantity of water pumped from the mine for the year was 758 million gallons, being a reduction of 230 million gallons compared with the preceding year. This reduction was effected by means of a brick dam built in the end of the 3rd level south drive and completed on 20th March. An additional flow of water encountered in the 4th level in July was also stopped by means of a dam. In October the cementation of water-bearing fissures on the 2nd, 3rd and 4th levels was commenced under the direction of M. Francois. At date this process has effected only a slight decrease in the quantity of water being pumped, but it is confidently anticipated that there will be a material reduction at an early date. The native labour supply throughout the year was ample for all requirements except hand drilling, which is not popular in narrow stopes with a low angle of dip when the ground is also fairly hard. The result was that all the increased tonnage had to be obtained by means of machine drills, so that the percentage of the ore mined which came from hand labour stopes decreased from 21 per cent. to 13 per cent. The 80 drill steam-driven turbo compressor was not finally completed till October, after which it was possible to do all breaking of ore on the day shift only. The ventilation of the mine has been much improved by the completion of the large haulage way from No. 2 to No. 3 shaft via the intermediate incline, and also by the completion of the connections on "C" level. The ventilation fan, which has been on order for a considerable time, has not yet been delivered, but is expected at an early date. The sinking of the intermediate and No. 3 incline shafts into the southern area of the mine was actively continued during the year, the progress made being 1,507 feet and 2,105 feet respectively. The total footage of development, inclusive of the inclines and haulage ways, was 21,237 feet, which is an increase of 7,116 feet on the previous year. This footage was distributed all over the workings of the mine, but a considerable proportion was in the intermediate incline section, where values are encouraging. The developed ore reserves, as measured and valued at 31st December, 1917, amounted to 2,200,000 tons, having an assay value of 7.5 dwts. over a stoving width of 61 inches. The development account stands in the books at £189,962, equal to 1s. 8.7d. per ton of ore developed. 2s. 9d. per ton milled was charged to working costs for development

redemption. The capital expenditure during the year amounted to £162,051, of which £84,884 was spent on underground work. At the close of the year an amount of £7,500 was unexpended in connection with votes uncompleted. Since then an additional £52,300 have been voted, chiefly for incline shaft sinking. With the enlarged plant in full operation, the improved facilities for transport of ore underground and the probability of a further reduction in the quantity of water to be pumped, there is a good prospect of a further increase in the total profit for the coming year.

GENERAL MANAGER'S REPORT.

The General Manager, Mr. S. Macphail, writes, *inter alia*:—

Shaft Sinking.—Sinking has been continued throughout the year at both the Intermediate Incline and No. 3 Shaft Incline. The former was advanced 1,507 feet to a total depth of 2,827 feet below the connection drive, and the 2nd Level drives east and west were proceeded with from a point in the shaft 950 feet below the first level. Good values were disclosed in the shaft for a considerable distance on either side of the point from which the drives were set off, and these have been maintained in the drives themselves. The No. 3 Incline was advanced a distance of 2,105 feet to a total depth of 3,203 feet. No drives were started from the shaft owing to the desirability of avoiding delay in sinking. *Development.*—In the upper section of the mine the main south drive and Main No. 5 south winze were continued, the former being on reef of very high grade. The C. level connection was completed, and both the C. level north and B. level north drives were extended for considerable distances, the former showing encouraging values for a portion of the distance, whilst the values disclosed in the latter were discouraging. The remaining development work in this section consisted of raising to the boundary from C. level and of blocking out the ground between the various drives for purposes of stoping by means of the usual winze and raise connections. In the main incline section the Nos. 1, 2, and 4 level north drives were further extended, and in each of these good stretches of payable ore were encountered. Winzes and raises were proceeded with between these levels and some of the connections were effected. The main haulage drive between Nos. 2 and 3 shafts was put through during the year, also a connection between this drive and the main south drive, which has assisted ventilation. From the intermediate incline, in addition to the No. 2 level drives already referred to, the No. 1 level drives east and west were continued, and the blocking out of the ground in this region by winze and raise connections has been commenced. *Construction.*—The various units of the new portion of the reduction plant were gradually brought into commission from the beginning of the year, the completion of the work being reached on the 15th March, when the new forty stamps and three tubo mills were started up and the change over to the new crusher, sorting and conveyor plant was effected. The whole of the plant has since run satisfactorily. The reconstruction of the old sixty-stamp portion of the mill was put in hand on the 1st of April, and at the close of the year work on the last twenty stamps was nearing completion. The whole battery of 100 stamps was put into operation on the 23rd of January. A new 80-drill air compressor of the steam driven turbo type was installed at No. 2 Shaft and started up towards the end of July, whilst the Stirling boiler plant at this shaft was fitted with chain grate stokers and an induced draught fan. It was found necessary to erect feed water treatment tanks at both the No. 2 Shaft and No. 3 Shaft boiler plants, owing to the corrosive action of our mine water on the boilers. Our difficulties in this connection appear to have been overcome. Four staff houses and ten pairs of workmen's cottages were built during the year, whilst the twenty-six houses known as north and south cottages were enlarged by the addition of an extra room and bathroom each. An extension was made to the change house at No. 2 Shaft. Two rooms in the single quarters were converted into a post office, which was opened for business at the beginning of December. The address of the mine is now P.O. Dersley. A pumping station was erected and equipped at the President dam and pipe lines installed to the mill, boilers and change houses, and a new brick transformer house has been built to replace the old wood and iron one near No. 3 Shaft. Both the Intermediate Incline and No. 3 Shaft incline were equipped with endless rope haulages, and a similar type of haulage was introduced in the connection drive between No. 2 main incline and the intermediate incline, thus permitting of all rock broken in the lower section of the mine being easily and cheaply transported to No. 2 Main Shaft. The extension of the haulage in No. 2 main incline from the 2nd to the 4th levels is in hand. The new circular station was brought by degrees into use, and by the middle of December was serving for all rock hoisted at No. 2 Shaft. The new arrangement provided for an enlargement of the ore bin which practically doubles its capacity. By the middle of February the mine had been equipped with the enlarged truck. A comparison of the figures for 1916 with those for 1917 shows that the tranning efficiency has improved by about 40

per cent., and whilst this improvement is due in a measure to the introduction of mechanical haulages, it is largely accounted for by the use of the altered truck. A brick dam was constructed near the end of No. 3 level, south drive, and the large flow of water in this end, which was the cause of the drowning of the bottom levels at the end of 1915, was thus shut off. A similar dam was built in the end of No. 4 level south drive to deal with the feeder met with there, and the cementation process has been introduced with a view to sealing up the fissure responsible for the influx of water and thus permitting

of the continuation of the drive. Cementation is being tried on other levels, where water fissures have been passed through, in the form of concrete cylinders, and it is hoped by this means to effect a considerable reduction in the quantity of water pumped from the mine. A new pump station capable of accommodating three large electric pumps was cut at the main station at the bottom of No. 3 Vertical Shaft and the existing sump was enlarged. A new pump is being installed at this station, and when completed, the two pumps situated in the old station will be transferred to the new one.

THE PROSPECTS OF THE MODDER DEEP.

THE Consulting Engineer of the Modder Deep, Mr. P. M. Anderson, in his annual report for 1917, writes:—The crushing capacity of the reduction plant was increased by the addition of one tube mill, which was put in commission during September. The tonnage milled was 494,400 tons, being an increase of 40,400 tons as compared with 1916. The duty per stamp improved to 23·8 tons per stamp per day, which, coupled with a running time equal to 97½ per cent. of the possible, is very satisfactory. The gold recovered equalled 39s. per ton milled, being an improvement of 1s. 2d. Working costs were practically unchanged at 16s. 4d. per ton milled. The resulting working profit of 22s. 8d. per ton milled shows an increase of 1s. 8d. The gross profit, including sundry revenue, amounted to £569,301, or £76,864 more than last year. The cost of mining supplies has continued to rise during the year. The cost of stores, gold realisation charges, war bonuses, and payments to dependents of employees on active service, charged to working costs in the month of December, 1917, was £4,555, or 2s. 2d. per ton greater than would have been the case in June, 1914. The stock of ore on the surface dump stood, at the end of the year, at 39,869 tons from stope faces, and 146,000 tons from development faces, 331 tons only having been drawn from the former during the year. The supply of native labour has been sufficient

throughout the year to meet the requirements of the mine, except that at times there was a scarcity of labour for hand drilling, resulting in a decrease of the percentage of ore broken in stopes by this means from 24 per cent. to 20 per cent. The health of the natives continued satisfactory. The death-rate from sickness was 4·09 per thousand and from accidents nil. The development work done during the year amounted to 6,186 feet. The values disclosed were sufficiently high to increase the grade of the ore reserves by 3 dwt. per ton. The developed ore reserves, as measured and valued at 31st December, amounted to 3,320,000 tons, having an assay value of 8·7 dwts. over an estimated stoping width of 78 inches. The tonnage and width are the same as those for the preceding year, while the value shows an improvement. The capital expenditure during the year amounted to £26,369, of which £10,984 was in connection with the new electrically driven reciprocating compressor which was put in commission in April. As far as can be foreseen, there will be no expenditure chargeable to capital account during 1918. The prospects for the ensuing year are that the continuance of the war will tend to increase working costs, but that such increase should be fully offset by a higher recovery due to the higher grade of the ore reserves. Should no unforeseen circumstances arise, the gross profit should show an improvement.

CORRESPONDENCE AND DISCUSSION.

Locally-Made Bolts.

To the Editor, *S.A. Mining Journal and Engineering Record*.

Sir,—The following sentence occurred in your valued paper on page 783 of the issue of April 13, 1918: "In regard to sizes the importing merchants are irritated at times because they are expected to supply the smaller sizes of nuts and bolts and the local factories get the big orders for the larger sizes." As the above paragraph conveys a very wrong impression of the true state of affairs, we should be obliged if you would publish the following analysis of our actual output for March, 1918. The bolts manufactured ranged from 1 in. to 25 in. long. Taking 6 in. as the dividing line between "shorts" and "longs," the proportions are as follows: ½ in., as 9 (short) is to 6 (long); ¾ in., as 83 is to 17; 1 in., as 18 is to 11; 1¼ in., as 43 is to 19; total, as 103 is to 53. From the above it will be seen that the weight of "shorts" manufactured is almost double that of "longs." Trusting the above will remove any misapprehension from the minds of your readers and thanking you for your courtesy in publishing this letter.—We are, etc.,

STEWART, SANDERS & CO., LTD.,

LEWIS A. STEWART, Director.

Johannesburg,
April 16, 1918.

The Price of South African Tin.

To the Editor, *S.A. Mining Journal and Engineering Record*.

Sir,—In reply to the letter you publish in your journal of April the 20th, we would like your East London correspondent to note:—The price of Zaaipplaats refined tin guaran-

teed 99·5 per cent. pure, delivered free to the following centres is as follows:—

Capetown	3/4½ per lb. nett.
Port Elizabeth	3/4½ " " "
East London	3/4½ " " "
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Also, may we draw your correspondent's attention to the following:—

- (1) The guaranteed purity of Zaaipplaats tin.
- (2) The latest London market price for tin is £343 per ton.
- (3) On his calculations this will cost a little over 3/9 per lb. landed in stores, East London.
- (4) It will pay him to anticipate his requirements of tin and stock up on Zaaipplaats at current rates.
- (5) Why be driven?
- (6) We're simply bustin' to get his initial order for Zaaipplaats tin.

Yours, etc.,

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Johannesburg,
26th April, 1918.

PERSONAL.

Mr. Stanley Maynard, of the firm of Messrs. James Neilson and Maynard, is leaving for England to undertake war-work.

Mr. T. S. Farquhar, formerly of the Johannesburg Stock Exchange, who has been serving in the Pay Department of the Army, is on a visit to the Rand.

REPORT OF THE SELECT COMMITTEE ON LOW GRADE MINES.

The report of the Select Committee, appointed by the House of Assembly, on the gold mining industry, is as follows: (1) Your committee regrets that, owing to the limited time at its disposal and to the difficulty of obtaining witnesses from a distance, it has been unable to carry out an inquiry of the far-reaching character indicated by the terms of reference. It has confined itself in the main to the consideration of certain suggestions which have been made for enabling mines to continue production which, owing to the low grade of their ore and the increase of working costs due to war conditions, are in danger of having to be closed. (2) Certain of the Witwatersrand mines have for some time past been mining reefs which contain only low-grade ore, and have consequently been operating with a small margin of profit. The war has resulted in a continuous rise in working costs, and there are three main factors which account for this increase, viz.: (a) the rise of wages due to war; (b) the extra cost of the stores used; (c) the shortage of explosives and of native labour. With respect to (c), it may be explained that the limitation of the output increases the burden per ton of the standing charges.

COMPELLED TO CEASE OPERATIONS.

(3) Unlike other industries, gold mining cannot adjust the difference by passing the increase in the cost of production on to the purchaser, since gold is the standard of the currency systems of the great commercial nations of the world. An ounce of gold has always a fixed value, as expressed in money; and the effect of an increase in the costs of production of gold is that ore which could formerly be mined at a profit ceases to be payable. Low-grade mines, therefore, that is to say, mines in which the value of the ore was at or near the payable limit before the rise, are compelled to cease operations. (4) Owing to all these factors, the low-grade mines are finding it increasingly difficult to make revenue cover working costs, and some of them may be compelled to close down within the near future. (5) A statement by the Transvaal Chamber of Mines shows that, during the quarter September to November, 1917, the fourteen mines with the lowest profit employed 5,896 white persons and 48,027 natives, and produced £576,403 worth of gold per month at an average working profit of only 9d. per ton of ore milled. These mines pay about £3,700,000 annually in white and native wages and salaries and about £2,800,000 in stores. (6) The Chamber of Mines has suggested the voluntary closing down of some six selected mines. If this suggestion is given effect to, it is stated by it that the native labour at present employed by these mines and the majority of the white employees would be absorbed by other mines, which are, owing to the shortage of labour, not working to their full capacity. The total gold production in that event, it is stated, would not be adversely affected. The amount distributed in native wages would remain the same, the amount paid in white wages would be somewhat diminished and the amount spent on stores considerably reduced. While the effect on the volume of business and on the general revenue of the country may not be serious, certain classes of persons employed on the mines will be thrown out of employment, and other classes whose livelihood and business depend largely or in part on their proximity to the closed down mines will be adversely affected, and will find it difficult to adjust themselves to the changed conditions.

THE MOST SERIOUS ASPECT.

(7) It must be remembered that mines do not last for ever, and that their closing down owing to the fact that their ore is worked out or has become unpayable is a natural and inevitable condition here as elsewhere. The most serious aspect of the present question lies, however, in the circumstance that some of the mines (other than those nearing exhaustion), when once closed down, would still contain large quantities of ore which could in normal times be exploited to advantage, and that they would find it difficult and perhaps impossible ever to reopen. The cost of reopening would be so considerable and the prospect of making an adequate profit from the low-grade ore they are known to contain, so problematical, that the capital required would be difficult to find. The advantage to be derived from the exploitation of the large quantities of ore left in these mines might therefore be permanently lost. (8) Your committee has, therefore, to consider whether anything should be done by the Government to avoid the dislocation of employment and of business which would naturally follow on the closing of a number of mines, and to prevent the loss to the State consequent on the abandonment of large quantities of ore which would under normal conditions be advantageously mined. It has also to be borne in mind that numbers of men who were employed on these mines have gone on active service under agreements with the companies which secure to their dependants half-pay during their absence and an assurance of re-employment on their return.

CLOSING DOWN OF POORER MINES.

(9) Various suggestions have been made by witnesses to deal with this problem. The Transvaal Chamber of Mines (except the Consolidated Gold Fields of South Africa, Ltd.) recommends the closing down of some six of the poorer mines by agreement, such mines to be selected by a Government committee, and to be those which in normal times would still have a considerable life in front of them. It proposes that the Government should grant to the companies concerned a subsidy which would enable them to continue pumping operations and to maintain the plant while shut down, so that when working costs resume their normal proportions these mines may resume crushing operations and enable them to carry out their undertaking towards their men on active service. It is contended that if this were done, the closing of mines could be kept under control and the labour and stores thereby released would materially assist others to keep open. It estimates the sum required to effect this at about £150,000 per annum. (10) The Consolidated Gold Fields of South Africa, Ltd., suggests the grant by the State of a subsidy per ton of ore milled which would enable such of the poorer mines as have a probable life of five years or more to cover any deficit in the cost of working until the strain introduced by the adverse war factors has been relieved, and it further proposes the formation of a Government committee to control output, development and the allocation of native labour and explosives. (11) Your committee is unable to recommend the granting of subsidies as suggested by the Transvaal Chamber of Mines and the Consolidated Gold Fields of South Africa, Ltd. It is unable

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to see any justification for a grant from public funds, and is of opinion that subsidies would constitute a bad precedent, and that it would be very difficult to keep them within reasonable limits. The Government would have to satisfy itself that its subsidy was economically used and not wasted in careless working or unnecessary costs, and no supervision could adequately ensure this, short of complete control by the State. It would be most difficult to justify the payment of such a subsidy to some mines and not to others which might be considered to be equally deserving of assistance by the companies owning them, or by the communities interested in their being kept open, and the Government would be faced with a demand to which no limit can be foreseen, not only from mining on the Rand, but also from other industries and communities. While unable to recommend any subsidy from public funds, your committee is of opinion that if a fund be established in the manner suggested in paragraph 16, such fund might be utilised for the purposes contemplated in paragraph 9 of this report.

GOVERNMENT LOANS NOT RECOMMENDED.

(12) Your committee has also considered whether the funds required could be granted by way of a Government loan of the nature of a preferent mortgage, but it is unable to recommend that this course be pursued. The consent of shareholders and, in some cases, of debenture-holders would have to be secured to such loans, and this would make the procedure so cumbersome and protracted that little practical use could be made of such relief. Moreover, it is impossible at present to foresee how long the war may continue, and how long its after effects may operate in keeping up working costs, and thus the burden of maintaining mines which are threatened with closing down may be thrown on the State for an indefinite period and to an increasing extent. (13) Your committee has also inquired whether the position of the low-grade mines could be alleviated by any remission of taxation. The taxation at present borne directly or indirectly by the mines consists principally of the tax on profits and dividends, and of Customs duties. The low-grade mines now under consideration have no appreciable profits tax. It has been stated that the indirect taxation on the mining industry amounts to about 9s. per ton milled. This, however, would appear to be an estimate not of the actual taxation borne by the mining industry, but of the revenue derived by the State directly or indirectly from the mining industry and also from those whose livelihood is derived directly or indirectly from the existence of the industry. No detailed figures have been put forward in support of this estimate, and such figures as your committee has been able to obtain indicate that the real burden of taxation on these mines is far below that figure, and that any relief which could be given in

respect of such taxation would be inappreciable. Railway rates on stores, machinery and coal carried are to be considered as payment for stores rendered and do not admit of substantial reduction.

TEMPORARY REMISSION OF CLAIM LICENCES.

(14) Some relief to closed down mines, which have a fair prospect of reopening, may be given by the temporary remission of the Government's share of claim licences. The relief which would thus be given to these mines would not be large in amount, but it would, in your committee's opinion, under the circumstances be justifiable. (15) Your committee considers that steps should be taken to control: (a) the amount of development work that may be carried on by each mine; (b) the allocation of stores, and especially explosives; (c) the allocation of the available native labour force. This control should be exercised if possible by voluntary action by the mining companies themselves, through the Chamber of Mines. Failing such voluntary action, however, your committee considers that the Government should be empowered to exercise control over the working of the mines so long as the industry is threatened with a shortage of stores and explosives. It is clearly not in the best interests of the country, or of the industry as a whole that some mines should be allowed to push on their development far ahead of their crushing requirements if others cannot obtain the supplies necessary to keep their mills working.

FREIGHT AND INSURANCE CHARGES.

(16) The Transvaal Chamber of Mines also suggested that the funds required under its proposal might be obtained by a reduction of the increased amount charged by the Bank of England, under an arrangement with the Imperial Government, for freight and insurance on gold bullion. The present charge is 25s. per cent. of the value of the gold, and this amounts to about £460,000 per annum as against a pre-war charge of 7s. 7d. per cent. A reduction of the charge from 25s. to 17s. 6d. would be equivalent to about £140,000 per annum. If this reduction were agreed to, it is suggested by the Chamber of Mines that the mines should continue to pay on the 25s. basis, and the balance of the 7s. 6d. per cent., amounting to £140,000, could be utilised by assisting the mines selected for closing down. (17) Although your committee is unable to recommend any proposal for direct financial assistance from public funds to those mines whose continued existence is endangered, it realises that the sudden closing down of a number of these mines may lead to considerable dislocation of the business of the country, and possibly to unemployment and distress. If this should occur, the Government must be prepared to take such action as it may deem advisable to deal with the situation. (18) Your committee has also taken the evidence of Mr. J. L. Schurink, M.L.A., with reference to certain grievances affecting the mines in the Lydenburg district, to which it directs attention. These grievances arise partly from the exclusion of these mines from the arrangements enjoyed by the mining companies of the Witwatersrand and partly from an alleged want of transport and other facilities. In so far as these matters can be dealt with by the Government, your committee feels justified in pressing them on its favourable consideration.

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The directors of the Standard Bank of South Africa, Ltd., have resolved, subject to audit, to recommend to the shareholders, at the general meeting to be held on April 24, a dividend for the half-year ended December 31 last, at the rate of 14 per cent. per annum, with a bonus of 1s. 4d. per share, both subject to income tax, making a total distribution of 15½ per cent. for the year 1917, to appropriate £10,000 to the writing down of investments, and £25,000 to the writing down of bank premises, and to add £30,000 to the officers' pension fund, carrying forward a balance of about £200,000. The bank appears to have secured some exceedingly good business during the year, as, besides the increase of the dividend from 14 per cent. to 15½ per cent., only £10,000 is necessary this time to write down investments, compared with £80,000 last year, while the balance carried forward is practically doubled at £200,000, after appropriating £25,000 to bank premises and adding £30,000 to the pension fund.

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WRIGHT'S ROPES

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PRINCESS ESTATE: CONSULTING ENGINEER'S REPORT.

IN his annual report for 1917, the Consulting Engineer of the Princess Estate, Mr. P. M. Anderson, writes:—In the aggregate the working results vary but little from those of the preceding year, in spite of a number of adverse factors, such as the continued rise in costs due to the war, a fire underground, delays in hoisting due to troubles with No. 1 shaft (central deep), and finally the temporary cessation of mining at that shaft on the 1st December to permit of re-arrangement of hoisting facilities. The tonnage milled was 281,600 tons, or 15,300 less than during 1916. The yield from gold at 25s. 6'8d. per ton and the working costs at 25s. per ton milled show increases of 7'7d. and 7d. respectively as compared with 1916, so that the working profit of 6'8d. per ton milled was practically the same. The total profit, including sundry revenue, was £11,850, or an increase of £765. Working costs are now affected to the extent of about 2s. 6d. per ton due to the war. The cost of stores, gold realisation charges, war bonuses and payments to dependents of employees on active service, charged to working costs, including development, in the month of December, 1917, was £2,720 greater than would have been the case in June, 1914. The seriousness of this increase is brought into relief by comparison with the average monthly profit from gold for the year, namely, £618. The native labour supply was sufficient, except for a short period, to meet the mine's requirements, and the health of the natives remained good. The death rate from sickness was 4'7 per thousand, and from accidents 2 per thousand. There were no fatal accidents among white employees. The development footage was slightly greater than during the previous year and a higher proportion was in Main Reef which gave satisfactory results. Development of the South Reef is practically completed down to the 13th level of the No. 1 shaft (central deep) section. Work below this level

cannot be undertaken until the shaft is deepened. The ore reserves, as re-measured and re-valued at 31st December, were as follows: South Reef, 298,000 tons, having an assay value of 7'1 dwts. over a milling width of 28 inches; Main Reef, 205,000 tons, having an assay value of 7'1 dwts. over a milling width of 52 inches; total, 503,000 tons, having an assay value of 7'1 dwts. over a milling width of 34'6 inches. The tonnage shows an increase of 27,000 tons, due to the estimate being based on a slightly greater width than heretofore. The value is the same as in the preceding year. In addition there are 50,000 tons valued at 7'5 dwts. on a milling width of 26 inches which must be left to protect shafts. The above 553,000 tons of ore stand in the company's books at £22,690, equal to 10d. per ton, while 2s. 6d. is being charged to working costs for development redemption. £9,364 were redeemed through working costs in excess of the expenditure. The capital expenditure, exclusive of development, for the year amounted to £3,019, all of which was spent in connection with the alterations at No. 1 shaft. As there is no immediate prospect of opening up payable reserves in the South Reef above the present lowest levels of the mine to which the shafts have been sunk, and as the South Reef and Main Reef tributary to No. 1 shaft show considerable promise, it became imperative if the life of the mine was to be extended, to sink the incline from No. 1 vertical shaft as soon as possible. The condition of the bend at the junction of the vertical and incline portions of this shaft was a source of expense and danger, and the long hauling distance, coupled with the time required daily for repairs in the bend, limited the capacity of the shaft to such an extent as to prevent shaft sinking. These disadvantages will be removed by deepening the vertical portion of the shaft and connecting the incline portion thereto by a bin and transfer level, thus separating the operations of hoisting in the two portions of the shaft. Concurrently with the above work it is intended to sink the incline portion of the shaft from the 13th to the 15th levels, but this has been delayed by the flooding of the 13th level due to the excessive rainfall, causing, for a short period in December and again in the present month, a greater influx of water than could be handled by the pumping plant. The work of deepening the vertical shaft was started on 1st December, and is estimated to be completed in the third quarter of this year. While it is in progress it will not be possible to supply the mill with the full tonnage, consequently it is unlikely that profits will be earned. But when the work is completed there will be no difficulty in again supplying the full tonnage and, as far as can be foreseen to-day, the profits earned should then show a considerable improvement on recent figures.

The Lonely.

The following are particulars of the output from the Lonely mine for the month of March: Mill ran 697 hours: crushed 5,060 tons; fine gold recovered, 1,413'828 ozs., value, £5,943 16s. 9d.; slimes treated, 5,060 tons; fine gold recovered, 2,900'208 ozs., value £12,197 13s. 2d.; total fine gold, 4,314'031 ozs.; total value, £18,141 9s. 11d.; profit, £8,592 9s.

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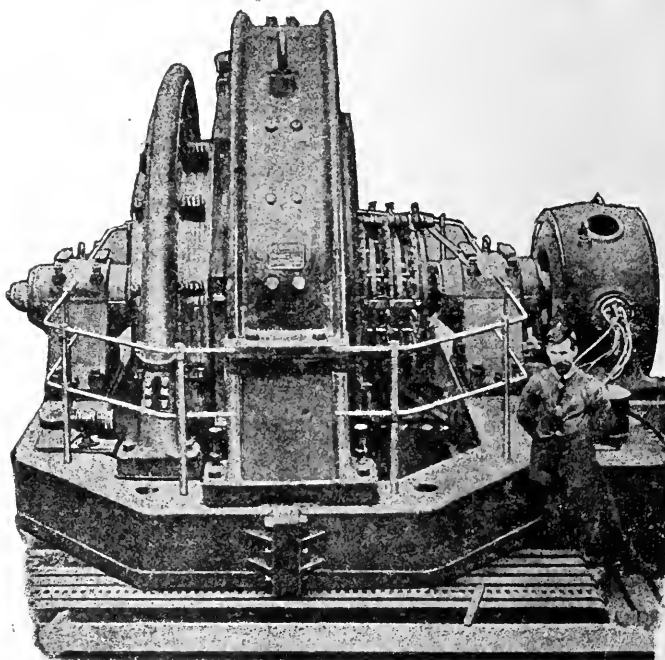
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THE YEAR WITH THE CITY DEEP.

Increased Working Costs—Shortage of Native Labour Restricts Crushing Operations.

Mr. E. H. Clifford, the Consulting Engineer of the City Deep, in his annual report for 1917, writes:—The following is a summary of the principal features of the past year's work, as compared with 1916: Tonnage milled, 1916 725,700, 1917 744,100; working costs per ton, 1916 20s. 2d., 1917 21s. 7d.; revenue per ton, 1916 39s. 7d., 1917 39s. 6d.; profit per ton, 1916 19s. 5d., 1917 17s. 11d.; total profit, 1916 £704,390, 1917 £673,736; dividends, 1916 £562,500, 1917 £562,500; development footage, 1916 25,743, 1917 22,861; ore reserve tonnage, 1916 3,676,100, 1917 3,326,900; value of ore reserve, 1916 9'0 dwts., 1917 9'0 dwts.; coloured labour strength (average), 1916 5,072, 1917 5,100. Instead of an increase in the year's profit, as anticipated in my last report, the amount earned was rather less than that of the previous year, due, as will be seen, to an increase in the working costs. The shortage in the native labour supply prevented the treatment plant being run at more than 80 per cent. of its capacity. The revenue per ton was kept at its former high figure, which, though somewhat greater than would be justified under normal conditions, can be maintained, if necessary, for a considerable period. Any improvement in the native labour supply and the resulting output of ore will be taken advantage of to reduce the revenue per ton to a figure more in accord with the ore reserve position. The payable ore reserve as at 31st December, 1917, is estimated as follows: Main Reef, 192,650 tons, value 4'8 dwts., stoping width 56 inches; Main Reef Leader, 3,134,250 tons, value 9'3 dwts., stoping width 65 inches; total, 3,326,900 tons, value 9'0 dwts. Included above are 410,030 tons not available for stoping at present. The average value remains the same as last year, while the tonnage is 349,200 tons less. This is chiefly due to the elimination for the present

of certain low-grade blocks of ore on account of the increase in the working costs. In regard to the prospects of the mine, your attention is directed to the following facts: To the west of No. 2 shaft, for a length along the strike of about 2,000 feet, all the drives from the 10th to the 14th levels have been in a zone of low-grade ore. The value of the ore disclosed in the workings of the neighbouring mines close to the boundary is of much higher grade and justifies the belief that the above-mentioned drives will improve in value as they go west. Between the shafts for a continuous length of 4,200 feet the values are very satisfactory. Including payable and unpayable ore and taking a width of about 600 feet on the dip at the extreme bottom of the mine, the average value of this stretch is 8'8 dwts., a figure but slightly lower than the value of the ore reserve. East of No. 1 shaft the reef is broken up by a series of large faults, and it is not possible, at present, to form a reliable opinion as to the prospects in this locality. The sinking of the two incline shafts has been carried on without intermission, both having passed the horizon of the 16th level. The Butters Filter Plant and the other additions to the equipment completed early in the year, are working satisfactorily, and the plant as a whole is in excellent order. During my absence in England for the greater part of the year, Mr. R. C. Warriner has acted as Consulting Engineer of your mine.

MANAGER'S REPORT.

The Manager, Mr. Percy Sherwell, in the course of an exhaustive report, writes, *inter alia*:—The decreased profit for the year was due entirely to the increase in working costs, attributable to the abnormal conditions obtaining at the present time. The Butters filter slime plant was brought into commission in February, 1917, bringing the capacity of the plant up to 80,000 tons per month, but on account of native labour shortage the tonnage milled for the year only showed an increase of 18,400 tons on the previous year. During the last few months of the year the native labour shortage was acute, both tonnage and profit suffering considerably. Metallurgical results show improvement; not only has there been a slight decrease in the value of the total residue, but the loss in dissolved gold per ton of slime treated has been reduced from 6'4d. to 1'9d. Except for trouble with the original motors, which have since been replaced, the new plant has been running satisfactorily. By the end of June, 1917, the conversion and electrification of one of the sinking hoists at No. 1 shaft was completed, greatly increasing the hoisting capacity from this section of the mine. Sandfilling was continued throughout the year, through both the circular shaft and the borehole in the western section of the mine; 216,641 tons of sand were lowered into the mine, as against 42,000 tons the preceding year. Particular attention is being paid to filling up stoped-out areas around No. 2 vertical shaft pillar. Reef packing is taking place in all stopes throughout the mine with very satisfactory results. 73,476 tons of Main Reef Leader are stored in the mine as reef packs of an average value of 10'1 dwts. Owing to sandfilling operations and systematic packing, little trouble was experienced in the mine workings. The accident rate for the year shows a great improvement due to these precautions, as well as to the interest and attention paid by all underground officials and employees to matters relating to the prevention of accidents and safety first movements.



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TRANSVAAL CHAMBER OF MINES: ANNUAL REPORT.—IV

A Review of the Industry.

THE electric furnace established by the industry on the Robinson Mine, under the control of the Witwatersrand Co-operative Smelting Works, Ltd., has worked satisfactorily throughout the year, the difficulties met with at the commencement of the experiment having been solved. Following upon the solution of these difficulties, the Union Steel Corporation of South Africa, Ltd., entered into an arrangement with the Chamber under which that Corporation will establish at Vereeniging electric furnaces capable of producing a large part of the industry's requirements in shoes and dies. It is hoped that the plant referred to will be in operation before the end of 1918. In view of the great shortage of scrap cast iron for the manufacture of castings, the Executive Committee found it necessary to recommend to groups that no scrap cast iron should be sold by the mines except to foundries actually manufacturing castings for the mines, and then only to an extent commensurate with the amount of scrap cast iron used in such castings.

LOW-GRADE MINES.

The increasingly serious position of a number of the low-grade mines arising from the great advance in the cost of mining supplies, the acute shortage of native labour, and the restrictions on the consumption of explosives, rendered it advisable, in view of the serious effect on the country of the closing down of any considerable number of mines, for the Executive Committee to put the position plainly before the Government. At the end of the year the matter was under the consideration of the Government.

MINERS' PHTHISIS.

The Miners' Phthisis Acts Amendment Act (Act No. 44 of 1917) came into force on August 1st, 1917. The more important amendments of the previous Law are: (1) That after the first day of August, 1916, and prior to the first day of August, 1918, the award to miners suffering from miners' phthisis in the secondary stage shall be £750. (2) That miners resident in South Africa on 31st July, 1916, and intending to reside for the remainder of their lives in Africa, south of the equator, who have been awarded secondary stage benefits under the prior law, and who are found on re-examination to be: (a) In the secondary stage of silicosis or suffering from tuberculosis with or without silicosis are to be awarded £750 (inclusive of, not in addition to, previous awards). (b) In the primary stage of miners' phthisis without tuberculosis, or physically unfit for underground work by reason of the presence of silicosis, though not in the primary or secondary stage, are to be awarded £500 (inclusive of, not in addition to, previous awards). To miners who have received primary stage awards found on re-examination: (a) To be in the primary stage, an additional £100 (making £300 in all). (b) To be suffering from tuberculosis, or physically unfit for underground work, though not suffering in the primary or secondary stage, an additional £100 (making £300 in all.) Dependents in all cases to receive the balance of the award unpaid at the death of beneficiaries. (3) That a beneficiary found on re-examination to be fit for underground work can again work underground, and if he again qualifies for benefits, will receive the full amount without deduction.

Mr. Arthur French, one of the Vice-Presidents, gave evidence in his personal capacity before the Miners' Phthisis Select Committee, and subsequently the Chamber presented a statement to the Committee on certain points raised at Mr. French's examination. The Chamber's statement expressed doubt as to the advisability of again permitting

beneficiaries to work underground, particularly those who had been found to be suffering from tuberculosis of the respiratory organs, even though on subsequent examination no tubercular infection was found, and further emphasised the uncertainty and insecurity that would be created were the Legislature to adopt the principle that the liability of individuals for past acts may be indefinitely increased in the future. The Select Committee refused to receive the Chamber's statement or to hear any evidence from the Chamber.

INCOME TAX.

The Income Tax (Consolidation) Act, 1917 (Act No. 41 of 1917), which came into force on 29th June, 1917, repealed the various Mining Taxation and Income Tax Acts, and consolidated the laws relating to the taxation of incomes, whether of companies or individuals, into one Act. Its main provisions affecting companies are the establishment of:— (1) A normal tax of one shilling in the pound. Exemptions: (a) Dividends in respect of which the Dividend Tax has been paid; (b) interest on debentures in respect of which the Normal Tax has been paid. The allowance for the amortisation of capital expenditure for gold mining companies is preserved. (2) A Dividend Tax of (a) 2s. in the £ for companies engaged in gold mining (of which 6d. is deemed to be a special war levy); (b) 1s. 6d. in the £ for companies engaged in diamond mining; and (c) 1s. in the £ for all other companies. (3) An Excess Profits Duty of 5s. in every £ of profits in the accounting year in excess of the profits made in the year ending June 30th, 1914. Exemption: The profits derived from gold mining are exempt from this tax.

Amendments to the Regulations under the Mines and Works Act, 1911, were promulgated in May, mainly dealing with the prevention of accidents, and the prevention and allaying of dust in the mine air.

The Bewaarplaats Moneys Application Act (Act No. 24 of 1917) provided that of the bewaarplaats moneys which have prior to the commencement of the Act been received by the Crown, nineteen-fortieths shall be deemed to be due to the registered owner, and of the bewaarplaats moneys which may hereafter be received by the Crown, eighteen-fortieths shall be deemed to be due to the registered owner, the debt to be paid during the continuance of the present war and for twelve months thereafter in Union 5 per cent. local stock.

The Sale of Agricultural Product on Certain Mines Act (Act 19 of 1917) provided for the sale of fruit and other agricultural produce in the mine compounds by approved persons or societies, removing the legal difficulty which previously existed in regard to such sale.

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The Workmen's Compensation (Industrial Diseases) Act, 1917 (Act 13 of 1917) extended the principle of the Workman's Compensation Act to industrial diseases. The diseases scheduled are Anthrax, Lead Poisoning and Mercurial Poisoning. Power is taken under the Act to extend its provisions to further diseases as the necessity arises.

The Transvaal Mining Leases Bill, introduced in the House of Assembly in the 1916 session, was not proceeded with. At the end of the year the Executive Committee understood that the Government intended to introduce another Bill in the present session of Parliament.

PATENTS.

At the beginning of the year three applications to which the Chamber had entered opposition were still *sub judice* (excluding two applications in which extensions had been granted the applicants until the cessation of hostilities between Great Britain and Germany). In one case the applicant amended his specification to meet the requirements of the Chamber, in another case the Chamber withdrew its opposition, while the third application was abandoned. During the year sixty-three specifications were reported upon by the Patents Committee. It was decided that no action should be taken in fifty-nine cases, and opposition was entered to the remaining four. In one case the applicants amended their specification, and the opposition was withdrawn, and the remaining three oppositions, together with the two above referred to, were outstanding at the end of the year.

The Executive Committee much regrets having to record the death of Mr. J. H. Ryan and of Mr. R. M. Connolly, who for many years represented members of the Chamber.

GOLD PRODUCTION.

The following table shows the comparison between the Transvaal gold output for the years 1916 and 1917:—

	1916.	1917.	Decrease.
Witwatersrand—			
Yield, value ...	£38,107,909	£37,017,633	£1,090,276
Yield, ounces ...	8,971,359	8,714,686	256,673
Outside Districts—			
Yield, value ...	£1,377,025	£1,306,288	£70,737
Yield, ounces ...	324,179	307,526	16,653
Transvaal—			
Yield, value ...	£39,484,934	£38,323,921	£1,161,013
Yield, ounces ...	9,295,538	9,022,212	273,326

The coal output of the Transvaal in 1917 increased by 504,316 tons, value £203,382, as compared with 1916. 1916: 6,136,913 tons, value at pit's mouth, £1,382,680; 1917: 6,641,229 tons, value at pit's mouth, £1,586,062. In December, 1917, there were 33 producing collieries at work in the Transvaal, namely, 4 in the Springs and Brakpan district, 18 at Middelburg, and 11 in other districts, the total number working showing an increase of 3 as compared with the corresponding month of 1916. The output of diamonds for 1917 in the Transvaal Province was 981,525 carats, valued at £1,667,299, as compared with 615,209 carats, valued at £933,643 for 1916. The following table shows the estimated value of the Transvaal output of copper and tin ore during 1917, as compared with 1916: Copper ore, 1916, value £663,304; 1917, estimated value, £549,388. Tin ore: 1916, value £336,135; 1917, estimated value, £369,826.

PROGRESS OF THE MINES SELECTION GROUP.

Points from Latest Quarterly Reports.

The following information appears in the quarterly reports of the Mines Selection group companies issued this week:—

BRANPAN MINES.

The linear development for the quarter amounted to 4,008 feet, of which 2,980 feet were on reef averaging 9'36 dwts. over a reef width of 42'54 inches. Of the footage on reef 1,710 feet, equivalent to 57'4 per cent., were in payable areas and averaged 14'04 dwts. over 44'46 inches. As already intimated through the Press, water was struck in No. 3 circular shaft during the quarter. Sinking operations have been temporarily suspended, the adoption of the cementation process having been decided upon. Work in this connection has commenced. The shaft has been sunk an additional 134 feet, making the total depth at the end of the quarter 330 feet, of which 182 feet have been bricked. The No. 4 circular shaft has been sunk an additional 63 feet, making the total depth at the end of the quarter 223 feet, of which 172 feet have been bricked. The installation of the sinking equipment has been completed, and normal sinking should now proceed. Capital expenditure incurred during the quarter amounted to £50,318 15s. 4d. The fixed charge for development has been increased from 1s. 9d. to 2s. 6d. per ton milled from January 1, 1918.

SPRINGS MINES.

The linear development for the quarter amounted to 4,666 feet, of which 3,820 feet were on reef averaging 14'85

dwts. over a reef width of 22'80 inches. Of the footage on reef 2,165 feet, equivalent to 56'7 per cent., were in payable areas and averaged 17'46 dwts. over 30'61 inches. During the quarter the registered capital of the company has been increased by 300,000 shares, of which 100,000 have been issued at £3 per share in terms of the lease agreement, and a further 50,000 at £3 per share for the redemption of debentures. During the period under review debentures of the nominal value of £137,725 have been purchased. The fixed charge for development has been decreased from 3s. to 2s. 6d. per ton milled from January 1, 1918. The main incline south has been extended into the lease area, and the development footage so far accomplished shows gratifying results both as to width and values. The collar set of the new No. 3 shaft in the lease area has been completed, and the headgear and sinking equipment are under construction.

DAGGAFONTEIN MINES.

The pumping station at the 2,000 foot level in the No. 1 shaft has been completed and equipped. The de-watering of this shaft is now in progress. At No. 2 shaft good progress has been made with the cementation process, and sinking should be resumed at no distant date. The Rand Water Board purchased 16,583,000 gallons of water during the quarter. During the period under review 25,000 shares of £1 each were issued and allotted in terms of the flotation agreement with the Consolidated Mines Selection Company, Ltd.

New Patents.

134. Henry James Lean.—Improvements in safety signalling arrangements for hoists.
135. Harold Cecil Greenwood.—Improvements in the synthetic production of ammonia.
136. Harold Cecil Greenwood.—Improvements in the synthetic production of ammonia.
137. Harold Cecil Greenwood.—Improvements in the synthetic production of ammonia.
138. Harold Cecil Greenwood.—Improved method of and apparatus for mixing compressed gases in definite proportions.
139. Jonathan Rankin Henderson.—An improved process for preserving fresh fish and other comestibles.
140. The Birmingham Small Arms Co., Ltd., and George Norman.—Improvements in and relating to mounts or stands for machine guns.
141. Walter Clifford.—Improvements in crutches for cripples.
142. Henry Gullium-Scott.—Improvements in insulated electric fittings for ceilings and the like.
143. Robert Donald.—Improvements relating to respirators or inhalers.
144. William Herbert Grinstead.—Improvements relating to electric circuits linked by a relay or repeater.
145. George James Coles.—Improvements in and relating to means for automatically coupling the brake and other pipes of railway and like vehicles.
146. Walter Williams Webster, Edwin Edser, and Louis Albert Wood.—Improvements in or relating to the concentration of tin wolfram ores.
147. Francis Jacob.—Improvements in or relating to insulated electric conductors or cables.
148. British United Shoe Machinery (South Africa), Limited.—Improvements in or relating to shoe sewing machines.
149. The Commercial Research Co.—Improvements in process of making halogenated products and apparatus therefor.
150. The Commercial Research Co.—Improvements in processes of making chlorhydrins.
151. Irvine Brook.—Improvements in or relating to non-slipping or the like device for resilient tyres for the wheels of road vehicles.
152. Karl Kutschka.—Improvements in machines for making hollow glass articles.
153. George Alfred Charles Brown.—Nose air filter or trap for dust, germs, insects, deleterious gas and vapours.
154. Marshall Burns-Lloyd.—Improvements in method of producing woven reed articles.
155. General Electric Company.—Improvements in and relating to insulators.
156. General Electric Company.—Improvements in and relating to systems of distribution.
157. Carl Johannes Francois Weber.—Improvements in cultivators and the like.
158. Sydney Prati Blackmore.—An improved tool for securing the detonators to the fuse in the preparation of priming charges for fixing explosive charges in blasting and like operations.
159. Robert Harbottle and Sigurd Sivertson.—Improvements in the production of methyl alcohol.
160. Ingersoll Rand Co.—Improvements in and relating to rock-drill cradles and the like.
161. Edward Harrison.—Improvements in rock drilling apparatus or machines.
162. Harry August Stockman.—Improvements appertaining to mechanically-propelled road vehicles to facilitate their travelling over soft, sandy or similar roads or grounds.
163. Thomas Sneddon.—Improvements in rock crushing apparatus or machines.
164. Frederick Victor William Swanton and Samuel Akland.—Improvements in pliant or adjustable furniture.
165. William Arthur Tvers.—Key index tablet or a system of arranging keys to facilitate their use.
166. Richard Rundle Wood.—The patent disappearing pole step.
167. Margaretha Lesser.—An improved cleaning machine for grain.
168. Margaretha Lesser.—An improved vibration screen with fan feeder for grain, meal, and other materials.
169. Thomas Dilks.—Improvements appertaining to the permanent ways or tracks of railways, tramways and the like.
170. Armour Hall.—Improvements in shock absorbers or buffers for the shoulder pieces of rock drills, rock drill cradles, and the like.
171. Wilhelm Manns.—Improvements in operating mechanism for centrifugal filters.
172. Adolph Landman Erasmus.—An automatic clutch for use in mine skips.
173. Guiseppe Antonio Pietro Provay.—Improvements in rotary engines and pumps.
174. Constant Wahl, Sam Pencharz, and Luke John Hitge.—A new or improved fuel for internal combustion engines.

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THE WEEK IN THE SHAREMARKET.

Weakness Still Prevails—Slight Rally Towards Close—Better London News.

THE market steadied itself on Saturday morning, though business was still restricted. The improvements were in Government Areas, Geduld Proprietary, Springs, Lydenburg Farms and Zaaiplaats. Prices were again steady on Monday with a slight improvement in Van Ryn Deeps. Business was restricted and there was once more very little inclination to deal seriously. At the opening on Tuesday Lydenburg Farms looked like going better with sales at 10s. 9d., but at the call sellers prevailed and lowered the figure, which in the course of the morning fell to 10s. 3d. Van Ryn Deeps, Springs and Sub Nigels were unchanged, but Government Areas were rather heavily sold and from opening sales at 71s. 9d. dropped to 71s. 3d. The whole Modder section was weaker, with the exception of Bs., which, after the call advanced to £7 6s. Business was quiet in the afternoon and the market closed dull. On Wednesday morning there was an all-round fall, with the exception of one or two unimportant stocks. Government Areas, Van Ryn Deeps, Springs and the Modderfontein lot were all marked down. The present state of the European situation certainly does not justify this persistent pessimism and nervousness. It can therefore only be surmised that there must be other influences at work. Prices weakened still further all through the day, notably in Zaaiplaats, which fell to 15s. 4d., and Government Areas, which touched 70s. 3d. Towards the close a London cable stating that the market had hardened, improved matters, and prices recovered appreciably. Thursday morning's opening and call maintained the overnight's closing recovery, so that very little alteration is to be noted between the two days' call prices, with the important difference that the later tendency is more towards buying than selling, especially in Zaaiplaats. Dealings in outside stocks have been limited, Alkalis showing best and Sakalavas worst: Sales: Sakalavas, 10s. 6d. to 8s. for odd numbers; South Van Ryns, 16s. 6d. to 16s.; Phoenix, 10d.; Monteleos, 38s. 6d. to 40s. Buyers: S.A. Alkalis, from 60s. to 65s.

Notwithstanding the satisfactory war news, the market shows little or no improvement. On Friday morning there was almost stagnation at the call. Another curious feature was the fact that in the face of the unprecedented price of £342 per ton for tin there has been no advance in the producing stocks. Alterations on yesterday's prices are:—Sales: Lydenburg Farms, 10s.; Lace Props, 13s. 9d.; Durban Rooipoort Deeps, 10s.; Springs, 66s. 3d.; Sub Nigels, 24s. 3d.; Zaaiplaats, 16s. 9d. Buyers and sellers: African Farms, 9s. 6d.—9s. 7d.; City Deeps, 51s. 6d. buyers; Modder Bs., £7 5s.—£7 6s. 6d.; Modder Easts, 18s. 6d. buyers; Village Deeps, 18s.—18s. 3d.

	Fri. 19th.	Sat. 20th.	Mon. 22nd.	Tues. 23rd.	Wed. 24th.	Thurs. 25th.
African Farms	9 6*	9 3	9 1*	9 0*	9 6†	9 3*
Anglo-Amer. Corp.	30 0*	31 6*	—	31 0*	—	32 6†
Apex Mines	6 9*	6 11*	6 10*	7 0*	7 0*	7 0*
Bantjes Cons.	3 1*	3 0*	3 0*	3 0*	3 0*	—
Brakpan Mines	—	—	85 0*	85 0*	82 6*	86 0*
Breyten Collieries	—	11 0*	—	11 0*	11 0*	—
Bushveld Tins	0 8*	—	0 8*	0 8*	0 10*	1 0†
Cassel Coals	27 6†	—	—	—	—	—
Cinderella Cons.	2 6*	—	—	2 6*	—	—
City & Suburbans	14 0*	14 0	14 0*	14 0	13 0*	13 6
City Deeps	51 6*	51 6*	—	51 3*	50 0*	51 0*
Cloverfield Mines	8 3	8 3*	8 3*	8 0*	8 1	8 0*
Clydesdale Colls.	15 0*	15 0*	—	—	15 0*	15 0*
Concrete Construc.	3 6*	—	—	5 0*	5 0*	5 0*
Con. Investments	20 0†	—	—	20 0†	—	—
Con. Langlaagtes	15 0*	15 0*	15 0*	—	15 6*	16 0*
Con. Main Reefs	13 9†	—	—	12 9*	12 6*	12 6*
Con. Mines Selec.	—	—	—	27 0†	25 0*	25 0*
Coronation Colls.	32 6*	—	—	32 0*	32 0*	32 0*
Coronation Freeholds	1 0*	1 3	1 2	1 3	1 4	1 3*
Crown Diamonds	3 9*	3 6*	4 0†	3 6*	3 6*	3 6*
Daggafontein Mines	22 6*	22 6*	—	23 0	22 6*	22 6*
Do. Options	7 0*	7 0*	7 0*	7 0*	7 0*	7 0*
Durban Road. Deeps	9 0†	—	—	—	—	—
East Rand Coals	2 1	2 0*	2 1*	2 0*	2 0*	2 0*
East Rand Deeps	0 11*	0 10*	0 10*	0 10*	0 10*	0 10*
E.R. Minings	—	—	17 6†	—	15 6*	15 0*
East Rand Props.	5 9†	5 0*	4 6*	5 0†	4 0*	—
Ferreira Deeps	13 0*	13 3*	13 0*	—	—	—

	Fri. 19th.	Sat. 20th.	Mon. 22nd.	Tues. 23rd.	Wed. 24th.	Thurs. 25th.
F. Smith Diamonds	2 10	2 10*	2 10*	2 10*	2 11†	2 9*
Geduld Props.	—	37 6	37 0*	36 9*	36 0*	36 6*
Glencoe Collieries	8 0*	8 0*	—	9 0†	9 0†	—
Glynn's Lydenburgs	16 9*	16 6*	17 0*	17 3*	17 0*	16 6*
Government Areas	71 6	72 0	71 9*	71 3	71 0	71 0
Jupiters	1 9†	—	4 9†	4 3*	—	4 0*
Knight Centrals	—	3 3*	3 3*	3 3*	3 6†	3 6†
Lace Props.	14 6	13 9*	14 0	14 9	13 3*	13 3*
Leeuwpoot Tins	20 6	19 6	19 9*	19 9*	19 6*	19 9*
Lydenburg Farms	9 10*	10 3	10 3	10 6*	10 0	10 1*
Main Reef Wests	—	2 7*	2 7*	2 7*	—	—
Middelvlei Est.	1 0*	—	—	1 0*	—	—
Modder B's	143 0	143 0*	144 6	145 0*	145 0	144 6*
Modder Deep	140 6	143 0†	140 0*	139 0	138 6	139 0*
Modder Easts	18 6*	18 6	18 6*	18 3*	18 3	18 0*
Do. Options (3 yrs.)	5 6*	5 10*	6 0†	5 6*	6 0†	—
Do. Options (4 yrs.)	7 0	7 0*	7 2*	7 3	7 0	7 0*
Natal Navig. Col.	19 0*	19 0*	—	—	—	19 0*
New-Boksburgs	1 1*	1 1*	1 1*	—	1 1*	—
New Eland Diam.	31 0*	31 0*	31 0*	31 0*	30 6	31 0†
New Era Cons.	10 0	10 0*	9 10*	9 6*	10 3†	9 9*
New Geduld Deeps	—	5 10*	5 9*	5 9*	6 0†	5 9*
New Herjots	—	23 0†	23 0†	21 6†	—	21 0*
New Kleinfonteins	13 6*	13 9*	13 6*	14 0†	13 3*	13 6
New Modder	£213	£224	—	£212†	£213†	£224
New Unifeds	4 9*	—	—	—	5 0*	5 0*
Nigels	3 3*	3 3*	3 3*	—	3 0*	3 0*
Nourse Mines	—	—	18 0†	18 0†	17 0	17 0*
Pretoria Cements	115 0*	120 0A	116 6*	118 9†	118 0*	117 6*
Princess Estates	1 9*	1 7*	—	1 10*	—	1 9*
Rand Collieries	2 8*	2 6*	2 6*	2 6*	3 0†	—
Rand Klips	8 9	8 9*	8 9	9 0	9 0	8 9*
Rand Nucleus	—	—	1 3	—	—	1 3*
Rand Select. Corp.	89 0*	89 3*	89 0*	89 0*	89 0†	89 0*
Randfontein Deeps	—	4 0†	3 10*	3 9*	3 10*	3 10*
Randfontein Est.	12 3*	12 6	12 3*	12 3	12 0*	12 0*
Roberts Victors	—	—	8 0†	8 0†	—	7 9†
Rooibergs	12 6*	13 6	12 9	13 0	12 6	12 9*
Simmer Deeps	2 0†	2 0†	1 6*	1 7*	2 0	2 0
S.A. Breweries	26 0†	26 6†	26 0†	26 0†	—	26 0†
S.A. Lands	6 2	6 1*	6 1*	6 3	6 1*	6 2
Springs Mines	67 0	67 0*	66 9*	66 9	66 0	65 9*
Sub Nigels	24 3	24 3	24 3	24 1†	24 0	24 3†
Swaziland Tins	21 6*	21 0*	—	22 0*	22 0*	22 6*
Trans. G.M. Est.	—	—	—	13 0	—	—
Van Ryn Deeps	69 0	69 0*	69 9	70 0	69 6*	69 6
Village Deeps	17 3*	17 0*	17 0*	17 0*	17 6*	17 6*
Village Main Reefs	—	—	—	11 0	10 6A	—
Western Rand Est.	2 6	2 4*	2 3*	2 4*	2 4*	—
Witbank Collieries	—	46 0*	46 0*	46 0*	46 0*	—
Witwatersrands	25 0	24 0*	24 0*	24 0*	24 0*	—
Wit. Deeps	7 6	7 9*	7 9*	—	8 3	8 6*
Wolhuters	4 9*	4 9*	4 6*	4 0*	4 3*	5 0†
Zaaiplaats Tins	16 10*	17 3	17 3	17 0	16 0	16 6
Union 5 per cent.	£103½	£103½	£103½	£103½	£103½	£103½
New State Areas	18 0*	18 0*	—	18 6	18 3	18 0*

* Buyers. † Sellers. A Odd Lots. AA 50 Shares.

ANSWERS TO CORRESPONDENTS.

All enquiries addressed to the Editor must bear the writer's name and full address. We cannot reply to enquiries by letter, but telegrams with replies prepaid will be answered. Correspondents are requested to write their names and pseudonyms distinctly.

"Investor" (Capetown).—Better leave the venture alone.

"Shareholder."—The questions at issue are not quite so simple as they seem. Enquiries are being made, and the subject will be dealt with next week.


"P. D."—(1) Yes. (2) Bulawayo. (3) During the next month.

"Mutamba."—(1) Better leave it alone. (2) A promising industrial, which you should certainly not sell now.

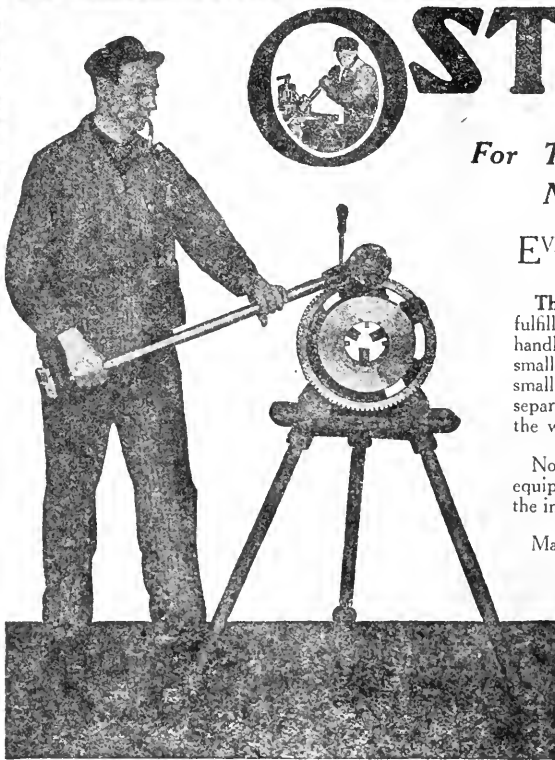
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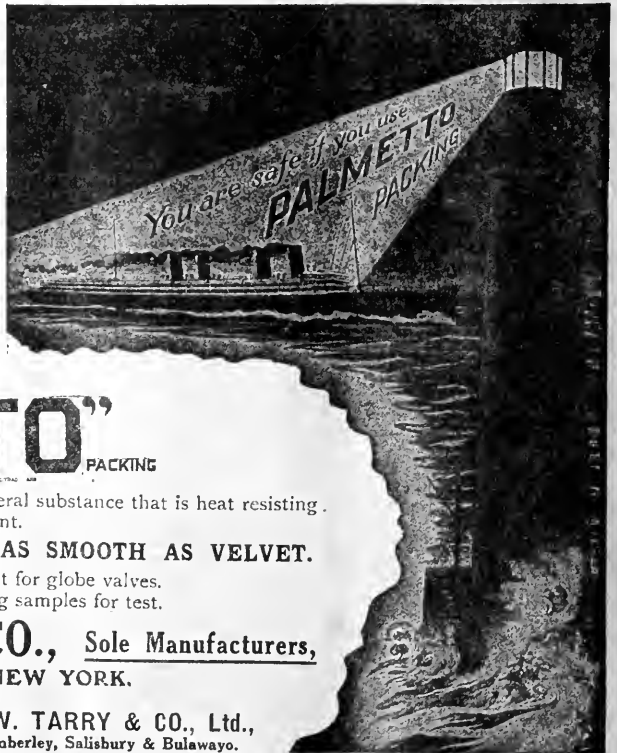
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THE WEEK IN THE MINING MATERIAL AND ENGINEERING TRADES.

A Calm Feeling—Business Quiet—Engineers' Strike—The Shipping Problem—S.A. Asbestos—Leather Grindery—Brass Sheets Received—Iron and Steel Trade—Second-hand Materials.

No good purpose would be served in disguising the fact that business has been upset owing to local political troubles. However, amongst practical mercantile men it is recognised that things must not be taken too seriously, as political and labour troubles seem to burst forth unexpectedly in all parts of the world. There is a peculiar calmness in mining circles, as a poor cycle of trade has been struck, which is taken as a matter of course owing to the great war requiring all the shipping it can command. However, as several merchants remarked, we have had a good time here since the war started, therefore we must be content to rest upon our trade laurels until the war atmosphere becomes clearer. After all, the shipping problem is the one really causing the trouble, but in a measure this is not so bad, because we have many war essentials, therefore a certain amount of shipping is assured to South Africa to fetch these essentials from the Cape to the various war zones. As regards the American route, this will always be kept going, intermittently at all events, as the sailors are required to carry our coal to South American ports, on the return journey.

SOUTH AFRICAN ASBESTOS.

A responsible Rand firm, having three asbestos propositions, has decided to form a subsidiary company to manufacture asbestos products at Capetown. This venture has been forced upon them, as owing to the absence of shipping the raw asbestos cannot be exported. Now seeing with all our machinery at work on these gold fields, a market is available for a considerable output, and Japan being a good customer for the raw material, possibly the manufactured article might suit them better. The difficulty is to obtain machinery, but this has partially been surmounted for a commencement. The idea is to manufacture lagging, roping, asbestos flock, ceilings and roofing tiles, also experiments will be taken in hand to manufacture a substitute for cotton waste, for which an almost unlimited market exists in South Africa.

MINERS' BOOTS AND THE LEATHER TRADE.

Up to the present the Union has done well in manufacturing boots, especially for the miners. But now there are pronounced signs that a check is taking place, because

grindery in the shape of nails, tips and other hardware required in the manufacture cannot be had from Britain. The South African makers have specialised in preparing leather for underground wear to resist the acids caused by the explosives, with a good measure of success. The harness makers are in a similar predicament, as they cannot obtain furniture, such as swivels, buckles, traces, chains, and a host of various silver and brassware required for a set of harness. Fortunately, we have plenty of South African leather which is improving from month to month, therefore special steps have been taken both in the boot and harness trade to secure the required grindery and furniture, but so far without success, as these things are wanted by the British Government during these strenuous times. The American harness fittings are made on a different plan from those of the British, therefore no relief can be expected from that quarter.

IRON, STEEL AND HARDWARE GOODS.

A responsible manager for a leading mining material house was asked what goods were acutely short. He replied "Turn the question and ask what is not short, as one day we counted the number of our telephone calls, and out of thirty we could only do three transactions, simply because the material asked for was not in stock." He continued: "We are expecting goods from both Britain and America, but they do not come, at least only a consignment now and again, whilst our advices show there is plenty of material waiting on the wharves in both countries." An American importing firm received a cable about steel plates, some of which are expected to be shipped very shortly, but so far there are not yet any on the way here. Consignments have recently been received at the coast of mild steel, whereas iron was expected, also three tons of brass of all sizes ranging from 3-16 in. down to 26 gauge. "Perhaps," the importer remarked, "this was the only complete set of brass sizes in the country." The strike of the engineering operators has had a deterrent effect on business, as obviously the shops are not purchasing material. However, now the subject has been referred to arbitration, no doubt a satisfactory ending will be found. It is a pity that arbitration was not adopted before the strike took place. By the way, public opinion was not on this occasion with the strikers, as the wages figures seem high, therefore the small amount of the difference in dispute did not justify such a

drastic action as a strike. The world seems more than ever in a give and take mood, not only on the labour question but in commercial affairs—rather arbitrate than have recourse to the law.

OVERSEA IRON AND STEEL TRADE.

According to a trade circular the British productive capacity of iron and steel from the raw to the finished material is under Government control, and trading becomes more and more difficult. Merchant business is non-existent, and only limited quantities are now allowed to be exported to Allied countries against urgent war needs. The position of pig-iron has lately become even more stringent through the magnitude of war needs and the ever-growing encroachments necessitated by the pushing of shipbuilding. Hopes had been entertained some time ago of good additional quantities of American steel, but the general position across the Atlantic has become more intensely complicated by the grave deadlock incidental to the fuel famine. What with the extensive shipbuilding by the United States Government, there is not much prospect of relief accruing from American sources.

SECOND-HAND MATERIALS.

A derelict mine's machinery, stores, and complete equipment at Barberton, have been purchased by a Rand firm for a good round sum. This is another case where a firm of mining material people has gone out of the way to buy second-hand goods, whereas hitherto it has restricted itself to new goods. Whilst the goods in everyday use are being gradually absorbed, business with the second-hand dealers is very quiet, so much so that as a general statement most of them have stopped buying until stocks, other than those in daily use, show signs of a gradual clearance. Undoubtedly some out-sizes and lines only occasionally wanted have been on offer by brokers cheaply, as things go, without finding buyers. The acute shortage of white lead is making itself felt in the second-hand yards, as paint is usually laid on liberally to give the old goods a new appearance, but now white lead is practically unobtainable the paint brush is not so freely used. There is a scarcity of big piping, as the farmers have been constant buyers for irrigation purposes. The second-hand building material yards have been well sorted over, as a good sprinkling of the best timber and iron are often used as substitutes in the smaller class of residential buildings. The superabundance of second-hand materials gives Johannesburg a paramount importance as a distributing centre for practically the whole Union.

TIMBER AND THE BUILDING TRADE.

Galvanised iron roofing is so plentiful that one firm is said to be selling about a penny per foot under our standard list prices. There is no alteration in timber values, but cables were received from the Baltic during the week, offer-

ing timber at reasonable rates, for shipment in two or three months, but no business was done, as the firm giving this information, decided to wait a little while to see how things progress on the western front. As regards bricks, they are easier to obtain but not in price, as the demand for immediate delivery as well as up to the end of June continues brisk. Some kilns have temporarily stopped delivery because the bricks are too hot to handle. This is mentioned to indicate the anxiety to get them out of the kilns on to the jobs already awaiting bricks. There is plenty of lime for immediate, or any other delivery, but cement is still scarce. Tiles are still very scarce for delivery this month or next. There is a lot of buildings in view, some of which are on the big side.

VARIOUS TRADE CLIPPINGS.

The last issue of this journal was unique in the publication of many annual balance sheets. A study of all, more particularly the Rand Mines, Ltd., can well be pondered over by merchants and others. There was a profit of £863,681, being a reduction of £89,498, as compared with the previous year; the details of which are abundantly set forth, as well as much data connected with our great industry. The white lead position is still acute, but the high price of 1s. 3d. per lb. wholesale has brought out a few tons, but this counts little to keep up Johannesburg's absorption. Prospects of relief are certainly not in sight, although a little has been shipped per sailing vessels from America. Glue at a very high price is said to be on its way from Brazil and may reach here about the beginning of May. Nitrate of lead has advanced to £50 per ton of 2,000 lbs. delivered to mines on the Witwatersrand, owing to increased cost of materials.

*REVISED PRICE LIST.

BUILDING MATERIALS.—Timber: Deals, Baltic, 9 x 3, 1s. 7½d. to 1s. 8½d.; flooring, 4½ x ¾, and 6 x ¾, 10½d. to 10½d. per square foot; flooring, 4½ x 1½, 10½d.; and 6 x 1½, 10½d.; ceilings, 6 x 1, 6d. to 6½d. per square foot; pitch pine, 9s. per cubic foot; Oregon, 7s. to 8s. per cubic foot; clear pine, ½ in. x 12 in., 1s. 3d. per foot; lin. x 12 in., 1s. 6d.; teak, 13s. to 20s. cubic foot; shelving, 1s. 1d.; jarrah, 12s. 6d. cub. ft.; poplar, lin. x 12 in., 1s. 6d.; scantling 1s. 7d. to 1s. 8d. ft. beaver boards, 5½d.; galvanised iron, 24-gauge, 6ft. to 10ft., 1s. 10d.; 11ft., 1s. 10½d.; 12ft., 1s. 11d.; 26-gauge, 6ft. to 8ft., 1s. 6d. to 1s. 7d.; 9ft. and 10ft., 1s. 7d.; flat galvanised, 24-gauge and 26-gauge, £5 100lb.; floor brads, 5½d.; ceiling, 4½d.; wire nails, 4½d. 6d. to 6½d. 100lb.; locks, rim, 65s.; mortice, 70s. per dozen; steel ceilings, 80s. to 85s.; roofing material, 1 ply, 45s.; 2 ply, 52s. 6d.; and 3 ply, 57s. 6d. per roll.

BRICKS, CEMENT, LIME, ETC.—Pretoria Portland Cement, 9s. 3d. bag; 8s. 3d. truck loads; lime, white, unslaked, 7s.; truck loads, 6s.; slaked, do., 5s.; blue, 3s. 9d.; plaster lime, 4s. 9d.; bricks, stock, delivered, 6½d. to 70s.; wire cuts, 70s. to 80s.; pressed, 70s. to 80s. 1,000; road transport expensive when obtainable; salt glazed £15½, and white bricks, £35 per 1,000; roofing tiles, £17½ to £27½ per 1,000; glazed tiles, 17s. 6d. to 27s. 6d. per yard; paving cement tiles, 8s. 6d. per yard laid; reinforced concrete columns, 6ft. plain, 25s.; fluted, 30s.; fireclay bricks, £8½ to £14½, at kiln, per 1,000; clay chimney pots, 35s. to 70s., according to height, 12 in. to 18 in., per dozen.

OILS, PAINTS, LEAD, OXIDE, GLASS.—Lined, raw and boiled, 13s. 3d. to 15s. 6d. O.M. gall.; white lead, 1s. 3d. per lb. and 1s. 2½d. in big lots; turpentine, 66s. 2/4 1-5 galls.; 10/1 5-6 imp. tins, 72s. 6d.; oxide in oil, 60s. per 100 lb.; dry oxide, 13s. 6d. to 16s.; lined oil putty, 9d. per lb.; paints in tins, 1s. 6d. lb.; British plateglass, ¼ in., 6s. 6d.; do., mirror, 7s. 9d.; window, 16 oz., 1s. to 1s. 6d. per foot; and fancy glass, 2s. per foot.

GREASE.—Imported, A.F. axle, £35½ local, £27 to £27½ per ton; tallow (local), 8d. per lb.; White Rose paraffin, 19s. 4d. 2/4

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CHEMICALS.—Mercury, £40 75lb.; bichromate potash, 5s. 6d. lb.; chlorate, 4s. 6d. lb.; permanganate, 11s. 6d. to 13s. lb.; alum, 6d. lb.; carbolic acid, 7s. 6d. lb.; borax, 115s. 100lb.; cyanide sodium, 2s. 3d. to 2s. 6d. per lb.; hypo, 9d. lb.; nitrate lead, local, 50s. 100lb.; litharge (assay), 70s. to 72s. 6d. (commercial), 58s. 6d. 100 lbs.; zinc sheets and blocks, 1s. 9d. lb.; locally-smelted zinc, 64d. lb.; plumhago crucibles, 5d. per number; carbide, 108s. to 112s. 100lb.

ELECTRICAL GOODS.—Lamps, high voltage, British, Holland and American, 30s. to 36s. wholesale, and 48s. to 54s. doz. retail; carbon lamps, 18s. dozen; pure rubber flex, 6d. to 8d. yd.; 3/20 coils wire, 50s. to 60s.; ditto, 3/22, 35s.; 7/22, 60s.; 7/20, 105s.; 7/18, 135s.; tubing, 27s. 6d. to 30s. per 100 ft.; keyholders, 4s. 6d. to 5s. 6d. each; round blocks, 3½in., 5s. 6d. to 6s. dozen; lamp holder cord grips, 15s. to 15s. 6d. per dozen; switches, 5 amp., 36s. to 42s. per dozen; British glass shades, 30s. to 40s. dozen; porcelain shackles, 15s. to 18s. dozen; do., bobbins, 25s. to 30s. per 100; cleats, 22s. per 100; P.O. insulators, 18s. dozen.

IRON.—Imported, ½in. and ¾in. round, 9d. to 10d. lb.; ½in. round and square 70s. to 75s. 100lb.; ½in., 68s.; ¾in. round, 50s. to 55s. 100lb.; ½in. up, round, 35s. to 40s. 100lb.; square iron, 36s. and up, 100lb.; flat iron, small shoeing sizes, 55s. to 70s.; flat, average width and thickness.

36s. to 50s.; round iron, local, ½in. upwards, 33s. 6d. per 100lb.; square iron, local, ½in. upwards, 33s. 6d. per 100lb.; flat iron, average width and thickness, 35s. 6d.; mild steel bar, 6½d. to 9d. per lb.; drill, 10d. to 1s. per lb.; steel plates, 70s. to 80s.; many sizes unobtainable; hexagon and cuphead bolts, ½in. diameter, 2s. per lb.; 5-16in. diameter, 1s. 9d. per lb.; ¾in. diameter up to 3in. long, 1s. 9d. lb.; ¾in. dia., 1s. 6d., 3½in. and up long 1s. 6d. lb.; ½in. dia. up to 2½in. long, 77s. 6d. 100lb.; ½in. dia. and 2½in. up long, 75s. per 100lb.; ¾in. diameter up to 2½in. long, 85s. per 100lb.; ¾in. dia. 2½in. and up long, 60s. per 100lb.; ¾in. diameter, 2½in. and up long, 55s. 100 lb.; ¾in. and 1in. diameter, same price as ¾in. diameter; nuts, ½in., 1s. 3d. per lb.; ¾in., 85s.; ½in. to 1½in., 75s.; 1½in. and 1½in., 85s.; 1½in. to 1½in., 87s. 6d.; 2in. up, 92s. 6d.; washers, all 45s.; rivets, 3-16in., 1s. 6d. lb.; ½in., 5-16in., 1s. 6d. lb.; 7-16in., ½in., 1s. 3d. lb.; ¾in., 75s.; ¾in., 65s.; ¾in. up, 60s. 100 lb.; shoes and dies, 32s. 6d. to 35s., 100lb.; rails, £25 per ton; picks, 4lb., 40s. per doz.; shovels, 55s. to 70s. per doz.; drill hammers, 5½d. to 6d. per lb.; hammer handles (best American), 14in., 4s. 6d.; 24in., 10s.; 30in., 14s.; 36in., 16s. 6d. per dozen; metal, anti-friction knoxite, 11d. to 4s. and special prices per lb.

In consequence of the daily, and even hourly, variation in prices, the Editor will answer reply-paid telegrams to verify any quotation in our list.

ORGANISING SAFETY WORK IN MINES.—VII.

Important Report on the Means Best Adapted for the Promotion of Safety

[By H. M. WILSON AND J. R. FLEMING.]*

SIGNS.

The favourable attitude of the management toward safety cannot be better shown than in a free use of signs consisting of various wordings and emblems for guidance and warning, both in and around mines. Warning signs judiciously used will tend to prevent accidents; as they are a constant reminder that danger does exist. Especially should all dangerous places be pointed out by means of some well-known warning sign. To be forewarned is to be forearmed. A sign, however, should not take the place of a positive removal of the danger. Man is disposed to use simple signs and emblems for danger, direction, and caution, such as a pointing arrow or hand for direction, and red for danger. The simplest sign is usually the best, and one that is self-explanatory without lettering is of most value, especially to non-English-speaking miners. Conditions frequently arise whereby certain sections or places in a mine become dangerous, as through accumulations of gas or through bad roof, and men must be prevented from entering. The Department of Mines of Pennsylvania has adopted a penalty danger sign to keep men out of such dangerous places. When so used this sign must not be passed. Its use, therefore, is restricted to a special purpose; thus a clear distinction is made between a sign of mere warning and one designating positive danger. Systematic posting of signs throughout the mine wherever they may be of aid has been carried out in a number of cases. Men temporarily lost in extensive workings may find their way out of the mine by noting the direction of air current, switches, flow of water, etc., but to do so requires more or less familiarity with the workings. Systematically posted signs giving the location and direction, such as "Third level," "This way to shaft," "This way out," have a direct value in the saving of much time, especially with new men unaccustomed to a particular mine, and undoubtedly in time of disaster, when men become confused, would aid greatly in the escape of survivors or assist in any subsequent rescue work. Durable signs, such as those of rolled steel with fused enamel letters, can be purchased from various manufacturers at a nominal cost. An economical method for making signs that can be employed by any company is with stencils or patterns cut out of stiff durable cardboard. A pattern of any desirable size can be made with suitable wording and emblem. When the stencils

are completed, it is easy to furnish a quantity of signs with the use of a few feet of properly planed lumber, three colours of paint, and brushes, using the most widely adopted style—black background, white letters, white arrow, and solid red circle. Another method is by blue prints of tracings. These blue prints can be used in making very effective illuminated signs or in displaying rules and notices in suitable frames.

GENERAL PRECAUTIONS.

In addition to safeguards against the dangers attending the use of machinery and other mechanical equipment, many protective devices, such as goggles to protect the eyes from flying chips, shields to protect parts of the body, respirators to prevent inhalation of dust, exhausts for confining dust, are provided. The value of any safeguard depends on its intelligent use, and for this reason education goes hand in hand with safeguards in the prevention of accidents. Well-defined standards for ventilation, timbering, explosives, shot-firing, track work, electric work, and inspection in conjunction with safe practices are the important requirements. Safeguarding is not intended to eliminate the need of personal thought and alertness, as careful men are always better than safety devices, but is essential for the protection of workmen who carelessly or unavoidably expose themselves to existing dangers. Besides, it has a marked tendency to cause men to cultivate habits of care. The safeguarding of machines has to do with the safety of the individual employees. Mining requires safeguards that have to do with the safety of the entire working force, such as guarding against mine fires and explosions. Given a sufficient number of elements and conditions, approximating a danger limit and favourable to an explosion or fire, there may arise at any moment a combination of circumstances that can furnish the additional factor necessary to initiate a frightful disaster. Safety measures against such conditions are highly desirable. Under this head are included for coal mines adequate ventilation, the use of improved types of locked safety lamps or permissible electric cap lamps in gaseous mines, explosion-proof motors, permissible explosives, safe methods of handling and transporting explosives, restricted use of electricity in gaseous mines, immunising or eliminating coal dust, use of incombustible material in construction work, adequate fire protection, and mine rescue and first-aid organisation.

*From Report of U.S. Bureau of Mines.

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Engineering Notes and News.

S.A. INSTITUTE OF ELECTRICAL ENGINEERS: PRESIDENT'S ADDRESS.*—V.

THE coal resources of the Transvaal and Natal are amongst the greatest assets of the country, and it is to be hoped that every inducement in connection with S.A. Railway rates will be accorded to the coal owners for maintaining and increasing the bunker trade at the ports so as to make it a permanent feature of the coal trade of South Africa. The Government must also see to it that no time is lost in keeping pace with a survey and classification of all the coal seams in the various coal mines by means of chemical and physical tests in the laboratory and applying the method of testing now adopted by the British Fuel Research Board, which by direct weighing and measurement is said to give the yields of gas, oil, water and carbonaceous residue which result from the carbonisation of coal at any definite temperature. The Scientific and Technical Committee must also include in their investigations other coal districts adjacent to the Union of S.A., such as at Quilingo in the Province of Angola, where there are extensive beds of highly bituminous coal, the products of which will be of great value to South Africa, more particularly in connection with asphalt mastie which is largely used for the paving of streets. Already there is a great outcry in South Africa

for tar, as an embargo has been placed on its importation from Great Britain. There is no reason whatsoever why the tar requirements of this country cannot be immediately provided from S.A. coals, even though there is no immediate prospect of economically using gas. This is rendered obvious when it is considered there is a big prospect of selling the coke produced for use in the blast furnaces now being introduced for the production of pig iron, and there are also several steam boilers available in the country which can be easily transformed for steam generation by means of gas firing should this be found necessary. A few years ago a tar plant was put down at the Witbank Colliery, but for various reasons it was elosed down: but the plant is still available, although it would require to be put in order and modified. It is more than probable that if placed in the hands of expert chemists and those with gas works experience, this tar plant could be turned to profitable use. In any case, the treatment of certain of the Transvaal coals at the collieries would pay for the recovery of tar alone, as will be seen from the following figures which have been extracted from the Johannesburg Municipal Council minutes, dated 3rd July, 1917.

Price of Coal per ton.	GAS YIELD PER TON OF COAL CARBONISED.			COKE AND BREEZE YIELD PER TON OF COAL CARBONISED.			TAR YIELD PER TON OF COAL CARBONISED.			Total estimated value of Gas, Coke and Tar per ton of Coal carbonised.
	Cubic feet corrected to 0°c. and 760 mm.	Rate per 1,000 cubic feet.	Total estimated Gas value.	Pounds.	Rate per ton.	Total estimated Coke and Breeze value.	Gallons.	Rate per gallon.	Total estimated Tar value.	
22/3	9,312	3/8	34/2	1,365	15/-	10/3	14.1	1/5	20/-	£3 4 5

The price of the coal given above is for coal received at the Gas Works in Johannesburg, with a freightage cost of about 6s. per ton, and the tar produced is equal to, and by many persons regarded as better than, imported tar for such purposes as road making. It should be stated that the necessary fire clay bricks and retorts can be made locally at Boksburg and Oliphantsfontein; in fact, orders are being executed from these places for fire bricks and retorts in connection with the Johannesburg Gas Works. It should not be difficult to find the necessary materials for the other structural work and owing to the small pressures encountered there should be no difficulty with regard to pipe work. The present gas retort house in Johannesburg was built departmentally in 1913, chiefly from local materials. The necessary capital for such an undertaking should be easily forthcoming and, no doubt, contracts could be obtained for several years' supply from the various municipalities in the Union, or a protective tariff arranged in the initial stages of the business. A suitable place would be in the Middelburg district, as there are other future possibilities for a big power station in that area, and it might be arranged as part of a co-ordinated scheme in connection with other developments, having regard to the great value of the research work at present being carried out by the British Fuel Research Board. In comparison with other countries, South Africa is not endowed with sources of water power to any great extent, leaving out of consideration the Victoria Falls on the Zambesi River. Investigations as to possibilities at various points of the Vaal, Orange and Mooi Rivers are being undertaken, but according to the evidence submitted by the Government Irrigation Department to the Power Commission in 1909, the Crocodile River is by far

the most important and accessible source of hydraulic power in the Transvaal. The evidence before the Commission was to the effect that by utilising the whole of the water in the Crocodile River between Nelspruit and Kaapmuiden and at another place a few miles from Kaapmuiden, a total of 30,000 to 40,000 k.w. is available at a very low cost per k.w. installed. The report of the Commission gives an account of a scheme outlined in 1909, the chief objects of which were:—(a) To sell power to the Central South African Railways for the electrification of the Waterval Boven-Komatipoort section of the railway; (b) to construct a transmission line to Pretoria and to sell power to the Cement Factory, the Pretoria Municipality, the Premier Diamond Mine, and other possible customers; (c) to connect to the mains of the Victoria Falls Company and to sell power to that company; and (d) to utilise power for the production of fertilisers. Changes of conditions during the last eight years as well as circumstances arising out of the war and the development of electro-chemical industries are such that if the statistics given by the Government Irrigation Department are correct, a scheme of this description deserves the most serious consideration; more especially having regard to the fact that ore from the Messina Copper Mines and Rhodesia is taken over the railway which brings it very close to these sources of water power, and the future development of the Sabie district with regard to the wattle bark industry, where, according to the report of the General Manager of Railways there are about 6,000,000 wattle trees planted. The electrification of South African Railways is also receiving attention, and this source of water power might possibly be utilised in connection with possible developments in this direction.

* Address by Professor Dobson, President of the S.A.I. of E.E.

(To be continued.)

If State interference in almost every domain of life and industry can make a State prosperous and happy, then (remarks the *Melbourne Argus*), Queensland ought soon to become an earthly paradise. The

Government there is already, apart from its legitimate functions, conducting butchers' shops, sawmills, coal mines, pastoral stations, a crushing battery, and a fish supply business. With regard to these enterprises it is alleged that the only one in which an indisputable profit was made was the supplying of the Imperial Government with meat for the troops in France. As compared with private enterprises, these undertakings all stand in the favourable position that they pay no rates or taxes, and are saved from a number of other competitive expenses. Yet for the most part they entail heavy losses.

The general elections for the State are approaching, and Mr. Ryan, the Premier, announces in his policy speech that the Government proposes to undertake the following additional enterprises and policies: Fruit canning, leasehold settlement, irrigation, suppression of the blowfly pest, produce agency, cold storage, forestry, national parks, fruit nursery, iron works, steel works, a steamship line, shipbuilding, more coal mines, salt works, the manufacture of arsenic, caustic soda, lime, potash, and phosphates, fish market, life insurance, superannuation allowances, and the initiative and referendum. The official organ of the Labour Party has stated that the most important State enterprise, the railways, went financially to the bad in 1916-17, to the extent of £750,000, and that the deficit in the present financial year is expected to be £1,500,000, but those ominous figures do not deter the Ministry from launching into a multitude of other undertakings for which there can be no legitimate hope of financial success. Anything from the blowfly pest up to the supply of medical attendance,

the Ministry is prepared to deal with. In undertaking to dip into the grazing industry it will no doubt plead that it is opposing great monopolists, but that excuse does not hold when it also enters into the production and sale of butter, seeing that 98 per cent. of the butter output of Queensland is produced by farmers' co-operative factories. The failure of State enterprises all over Australia has become monotonous in its regularity; but that consideration exercises no restraining influence on politicians who appeal to "the great heart of the people" by promising the extension of such activities in scores of directions. It is remarkable how in this development of State policy the mantle of the old English Tory has fallen upon the most advanced Australian Radicals, and is flaunted with pride, as if it were a new garment.

Apart from the direct extravagance, waste, and inefficiency of Governments when they step beyond their proper sphere, there is the unwelcome fact to be faced that every extension of State enterprise means another increase in the army of public servants who live upon the earnings of the remainder of the people. Many of them, of course, perform highly useful and honourable service. But they all speedily become a class apart. The more numerous they are the greater is the political influence they can exercise; and as they are only human beings they exercise it in their own interests when questions of public economy on the one hand, and the increase of their own emoluments on the other, are in issue. If the flagrant political bribery which forms the main part of the Ryan policy succeeds in Queensland and the public service is thronged, as it will be, with his supporters, the ordinary, income-earning, tax-paying citizen will ere long be unable to call either his money or his soul his own.

The Week's Meetings.

ANGLO-FRENCH COAL.

ANNUAL MEETING.

Colonel Dalrymple, in addressing the shareholders at the annual meeting of the Anglo-French (Transvaal) Navigation Coal Estates, Ltd., on April 19, said: The results of the working of your colliery for the year show a slight falling off as regards tonnage, this being mainly due to the irregular supply of trucks. The profit amounted to £28,322, including £2,293 sundry revenue; of this latter figure £2,000 was received from the South African Railway Administration in consideration of the company agreeing to forego the right to mine coal under an area to be used by the Administration as a railway emplacement whilst the area is so used. The balance brought forward from the year 1916 was £10,631, which, added to the profit of £28,322, gives an amount of £38,953 carried to the appropriation account. This was dealt with as follows: Dividends to preference shareholders of 5 percent, and 4.6 percent, £11,530; depreciation, extension of plant, etc., £3,000; taxation, £1,200; leaving a balance of £23,253 carried forward. Preference shareholders have been paid the 7 per cent. cumulative preference dividend in full to 31st December, 1917. Capital expenditure for the year amounted to £19,134, the principal items being: Piping and pumping plant for water supply, £4,500; additional accommodation for 100 natives and certain white employees, £978; 100 mine tubs, £1,408; eight small pumps and motors, £692. You will remember that when I last addressed you I referred to the fact that the water supply had caused anxiety. Unfortunately, during 1917, the position became more acute than had been anticipated, and it was found necessary to immediately connect with a supply that it is considered will meet all our needs. The cost of this work was £4,500.

New Plant Installed.

The present plant and machinery at your mine has been in continuous use for a number of years, and in order to provide the elasticity necessary to ensure the safe and continuous working of the mine, and to provide for further expansion of the coal trade that may be reasonably looked for, it was decided to make the following additions to the existing plant: 1 storage bin with a capacity of 1,000 tons, 1 35-drill compressor, 1 Babcock and Wilcox 30 h.p. boiler, 1 chimney stack, 100 new mine tubs, 5 coal cutters. The estimated cost of this new plant is £20,000. The cost of the mine tubs and coal cutters has been charged in the accounts before you. The foundations of the storage bin, compressor and chimney stack have been laid down and the erection of the boiler and compressor are now nearing completion. The wet weather retarded the laying of the foundations; the erection of the bin and chimney stack will be proceeded with as soon as the foundations are set. It is hoped that this additional plant would not have been necessary until after the end of the war, but owing to the pressure put on the old plant, by lack of reserve power, it was decided in November last to push on

with the work in order to make the company's position secure. This capital expenditure necessitated the passing of the dividend on ordinary shares. Given normal conditions, however, I think that we are justified in forecasting a reasonable dividend on the ordinary shares at the end of the present financial year. In the last balance sheet presented there appeared an item of £34,643, being the amount expended on properties abandoned and similar expenditure which was not represented by assets. It has been decided to write off this expenditure against the amount transferred from the appropriation account on the other side of the balance sheet. The agreement under which the Transvaal Coal Owners' Association was constituted will expire on 30th June next. A new agreement has been arranged under which the Association will be reformed for a period of five years from 1st July next. Four of your company's employees are on active service, and I regret to announce that one of them, Mr. John Boles, has been wounded twice in Flanders. The employees are still liberally supporting the war fund. Up to the end of the financial year they had contributed £1,920 by voluntary deductions from their pay. The thanks of your company are due to the management and staff for the good work done during the year 1917. I now move the adoption of the reports and accounts before you, also the confirmation of the action of the directors in declaring interim dividends Nos. 13 and 14 of 5 per cent. and 4.6 per cent., which were paid to the holders of preference shares.

The motion was carried unanimously, and the retiring directors re-elected.

APEX MINES.

WORKING PROFIT £24,288.

Colonel Dalrymple addressed the shareholders at the annual meeting of the Apex Mines, Ltd., April 19, as follows:—Gentlemen, the results obtained from the working of your colliery for the past year show an improvement both as regards tonnage and profit. The working profit for the period, including sundry revenue, amounted to £24,288, as against £21,635 for the year 1916. An amount of £25,204 was brought forward at the beginning of the year, giving a total of £49,492 in the appropriation account, which was dealt with as follows:—Dividends, £18,750; Government taxation, £2,223; leaving a balance of £28,519 carried forward. The sales of coal show an increase of 15,420 tons as compared with the previous year. Development has again been kept well ahead of mining, and at the end of the year there were 24.4 acres of developed coal immediately available for mining, compared with 20.2 acres at the end of 1916. The Railway Administration has given notice that they will expropriate one of the Wolhuter stands. The amount agreed upon as compensation was £200, the company retaining rights of way to the adjacent properties. The agreement under which the Transvaal Coal Owners' Association was con-

stituted will expire on 30th June next. A new agreement has been arranged under which the association will be reformed for a period of five years from 1st July next. It is with extreme regret that I have to announce the death of Mr. John H. Ryan, who was a director of the company for many years. It has been decided that the vacancy on the board shall not be filled. The employees at the mine continue to liberally support the war funds, their voluntary contributions deducted from their pay having reached a total of £1,116 at the end of the financial year. The thanks of the company are due to the manager, Mr. J. R. Thom, and the staff for the manner in which their duties have been carried out during the past year. I now move the adoption of the reports and accounts for the year ended 31st December, 1917, and also the confirmation of the action of the directors in declaring interim dividends Nos. 22 and 23 of 5 per cent. and 7½ per cent. respectively.

The motion was carried unanimously.

PRETORIA PORTLAND CEMENT.

ANNUAL MEETING.

The annual meeting of the Pretoria Portland Cement Co. was held on April 22, Mr. H. C. Boyd presiding. In the course of his speech the chairman said the deliveries of the product during the past year exceeded those of any previous year by 20 per cent. and the net profit increased to £97,045. With the balance brought forward there was a total credit of £110,039 from which two dividends of 20 per cent. each, absorbing £60,000, were paid and £50,000 was added to the reserve fund, making it £150,000, the small balance being carried forward to the next account. As was to be expected the value of the stores in hand and transport had materially increased and at the end of the year amounted to £50,608. Work at both factories continued satisfactorily and they would soon be able to cope with the heavy orders on hand. He added:—"I need hardly say that if circumstances warrant it we shall not hesitate to extend further the company's activities either at Slurry or elsewhere. As the report mentions, several limestone deposits were, with this end in view, examined during the year. You have received notices calling an extraordinary general meeting of shareholders on the 22nd July to consider proposals for doubling the capital and effecting alterations in certain of the articles of association, involving the capitalisation of the £150,000 standing to the credit of the reserve fund and the subsequent issue to shareholders registered on August 31 next of the 150,000 new shares as a bonus at the rate of one new share for each share held. The reasons for this suggested procedure are set forth in the report before you and your directors feel that they must commit themselves to all shareholders. Consequently you are strongly recommended to pass the necessary resolutions when they are submitted to you."

The chairman, referring to a newspaper allegation that the price of cement had been raised, said their price had not been increased recently either to contractors or the public.

The report was adopted and the entire board re-elected.

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NOTICE TO SHAREHOLDERS.

NOTICE IS HEREBY GIVEN that the Thirteenth Ordinary General Meeting of Shareholders in the Van Dyk Proprietary Mines, Limited, will be held in the Board Room, 94, Main Street, Johannesburg, on WEDNESDAY, 19th JUNE, 1918, at 10.30 a.m., for the following purposes, namely:—

1. To receive and consider the Balance Sheet and Revenue and Expenditure Account, together with the Directors' and Auditors' Reports, for the year ended 31st December, 1917.
2. To elect two Directors in place of Messrs. J. Friedlander and W. R. Crowhurst, who retire by rotation in accordance with the provisions of the Company's Articles of Association, but are eligible, and offer themselves for re-election.
3. To fix the remuneration of the retiring Auditors, Messrs. F. W. Diamond and English and Messrs. C. L. Andersson and Co., and to appoint Auditors for the ensuing year.
4. To transact any other business that may be transacted at an Ordinary General Meeting.

The Transfer Books and Register of Members of the Company will be closed from the 12th June to the 3rd July, 1918, both days inclusive.

Holders of Share Warrants, desirous of attending in person or by proxy, or of voting at the Meeting, must deposit their Share Warrants:—

- (a) At the Head Office of the Company in Johannesburg, at last twenty-four hours before the time appointed for the Meeting;
- (b) At the London Office, Pinners Hall, Austin Friars, E.C., or in Paris with Mr. M. Tourret, 25, Rue de Clichy, at least thirty clear days before the time appointed for the Meeting;

together with a statement in writing of their names and addresses, and must comply with the other conditions applicable to Share Warrants.

By Order of the Board,

C. L. CHALMERS, Secretary.

Head Office: 94, Main Street,
(P.O. Box 1125), Johannesburg.
18th April, 1918.

The Tudor Gold Mining Co., Ltd.

(Registered under the Limited Liability Laws of the Transvaal.)

NOTICE TO SHAREHOLDERS.

NOTICE IS HEREBY GIVEN that the Seventeenth Ordinary General Meeting of Shareholders in The Tudor Gold Mining Company, Limited, will be held in the Board Room, 94, Main Street, Johannesburg, on WEDNESDAY, 19th JUNE, 1918, at 11 a.m., for the following purposes, namely:—

1. To receive and consider the Balance Sheet and Revenue and Expenditure Account, together with the Directors' and Auditors' Reports, for the year ended 31st December, 1917.
2. To elect two Directors in place of Messrs. S. C. Black and J. Friedlander, who retire by rotation in accordance with the provisions of the Company's Articles of Association, but are eligible, and offer themselves for re-election.
3. To fix the remuneration of the retiring Auditors, Mr. Charles Stuart and Messrs. F. W. Diamond and English, and to appoint Auditors for the ensuing year.
4. To transact any other business that may be transacted at an Ordinary General Meeting.

The Transfer Books and Register of Members of the Company will be closed from the 12th June to the 3rd July, 1918, both days inclusive.

Holders of Share Warrants, desirous of attending in person or by proxy, or of voting at the Meeting, must deposit their Share Warrants:—

- (a) At the Head Office of the Company in Johannesburg, at last twenty-four hours before the time appointed for the Meeting;
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- together with a statement in writing of their names and addresses, and must comply with the other conditions applicable to Share Warrants.

By Order of the Board,

C. L. CHALMERS, Secretary.

Head Office: 94, Main Street,
(P.O. Box 1125), Johannesburg.
18th April, 1918.

The National Bank of South Africa, LIMITED.

NOTICE TO SHAREHOLDERS.

NOTICE IS HEREBY GIVEN that the Ordinary General Meeting of Shareholders will be held in the Board Room of the Bank Buildings, Pretoria, Transvaal, on FRIDAY, the 21st JUNE, 1918, at 12 o'clock noon, for the following purposes:—

1. To receive and consider the Balance Sheet of the Bank's operations for the year ended 31st March, 1918.
2. To receive the Report of the Directors and Auditors.
3. To confirm the appointment by the Board of Mr. J. B. Taylor as a Director of the Bank.
4. To elect three Directors in place of P. Dunnean, Esq., C.M.G., M.L.A., H. O'K. Webber, Esq., and J. Emrys Evans, Esq., C.M.G., who retire in terms of the Trust Deed, but are eligible and offer themselves for re-election.
5. (a) To fix the remuneration of the Auditors for the past audit and (b) To appoint Auditors for the ensuing year. Robert Baikie, Esq., I.A., and John Dougall, Esq., I.A., the present Auditors, offer themselves for re-election.
6. Transaction of General Business.

The Head Office (South Africa) and the London Share Transfer Registers of the Bank will be closed from the 15th to the 25th June inclusive for the purpose of this Meeting and for any dividend that may be declared thereat.

Attention is drawn to the following: Holders of Share Warrants to Bearer are entitled to vote by proxy. Such Shareholders desiring to be present or represented at the Meeting must deposit their Share Warrants at either of the places, and within the times, stated below:—

- (a) At the Head Office of the Bank, in Pretoria, at least Three Days before the day fixed for the Meeting.
- (b) At any of the Branches of the Bank in South Africa at least Eight Days before the Meeting.
- (c) At the London Office of the Bank, Circus Place, London Wall, E.C., at least Thirty Days before the Meeting.
- (d) At the Credit Mobilier Français, 50 and 32 Rue Taibout, Paris, at least Thirty Days before the Meeting.
- (e) At the Rotterdamsche Bankvereeniging, Amsterdam, at least Thirty Days before the Meeting.
- (f) At the New York Agency of the Bank, 10 Wall Street, New York, at least Forty Days before the Meeting.

The instrument appointing a proxy must be deposited at the Office in Pretoria, not less than 48 hours before the time fixed for the Meeting at which the person named in such instrument proposes to vote.

By Order of the Board of Directors,

C. P. MATHEWS, Secretary.

Pretoria, 18th April, 1918.

THE MODDERFONTEIN DEEP LEVELS, LTD.

(Registered under the Limited Liability Laws of the Transvaal.)

NOTICE TO SHAREHOLDERS.

NOTICE IS HEREBY GIVEN that the Seventeenth Ordinary General Meeting of Shareholders in the Modderfontein Deep Levels, Limited, will be held in the Board Room, 94, Main Street, Johannesburg, on WEDNESDAY, 26th JUNE, 1918, at 12 NOON, for the following purposes, namely:—

1. To receive and consider the Balance Sheet and Profit and Loss Account, together with the Directors and Auditors' Reports for the year ended 31st December, 1917.
2. To elect two Directors in place of Messrs. W. Ross and W. R. Crowhurst, who retire by rotation in accordance with the provisions of the Company's Articles of Association, but are eligible, and offer themselves for re-election.

3. To fix the remuneration of the retiring Auditors, Mr. Charles Stuart and Messrs. F. W. Diamond & English, and to appoint Auditors for the ensuing year.
4. To transact any other business that may be transacted at an Ordinary General Meeting.

The Transfer Books and Register of Members of the Company will be closed from the 12th to the 26th June, 1918, both days inclusive.

By Order of the Board,

C. L. CHALMERS,

Secretary.

Head Office:

94, Main Street,
(P.O. Box 1125), Johannesburg.
25th April, 1918.

DIRECTORS' REPORT

For the Year ending 31st December, 1917.

To be submitted at the Seventeenth Ordinary General Meeting of Shareholders to be held in the Board Room, 94, Main Street, Johannesburg, on Wednesday, 26th June, 1918, at 12 noon.

To the Shareholders,

THE MODDERFONTEIN DEEP LEVELS, LIMITED.

Gentlemen,—Your Directors beg to submit their Report, together with the audited Statements of Account, and the Reports of the Consulting Engineer and the General Manager, for the year ended 31st December, 1917.

CAPITAL AND PROPERTY.

The Capital remains unaltered.

The property consists of mining claims held under licences, equal in area to 377,499 full claims, on the farm Modderfontein No. 17, Boksburg District, Witwatersrand Gold Fields.

The Titles are in order.

ACCOUNTS

The Balance Sheet, Profit and Loss Account and Appropriation Statement, which accompany this Report, reflect the result of the Company's operations during the year and its position at the 31st December, 1917.

The Profit and Loss Account shows:—

Profit for the year 1917, including Interest and Sundry other Revenue	£569,300 12 2
Against which have been charged:—	
Government Taxes	£72,011 12 6
Excess Mine Development (1917)	4,551 11 0
Donations	2,413 3 4
Depreciation	74 0 0
	79,050 6 10

Balance to Appropriation Account

£490,250 5 4

The Appropriation Account shows:—

Balance unappropriated at 31st December, 1916...	81,462 6 9
Balance of Profit and Loss Account, as above	£490,250 5 4
	£571,712 12 1

Against which have been charged:—

Capital Expenditure (Balance)	£19,237 6 0
Dividends Nos. 5 and 6	425,000 0 0
Directors' Additional Fees	1,000 0 0
	445,237 6 0

Leaving an unappropriated Balance at end of the year of

£126,475 6 1

The expenditure on equipment totalled £26,369 2s. 2d. and £5,696 0s. 10d. have been appropriated for excess development done during 1916, making the total expenditure on Capital Account £32,065 3s. 0d. In the last Balance Sheet the amounts appearing against Livestock and Vehicles, Normal Stores and Material, and Shares in other Concerns, totalling £12,827 17s. 0d. were shown

above the line as charge against Capital Account. On the advice of the Company's Auditors such assets are now shown below the line as "Cash Assets," and Capital Account has been credited with £12,827 17s. 0d. The amount appropriated for Capital Expenditure is therefore £19,237 6s. 0d.

Dividends Nos. 5 and 6 of 40 per cent. and 45 per cent. respectively, were declared during the year. The total amounts accrued to Enemy Shareholders have been paid over to the Custodian of Enemy Property, or to the Public Trustee (England), pursuant to the Trading with the Enemy Act, 1916.

The policy of keeping on hand exceptionally large stocks of stores and materials for mining purposes has been continued.

The Income Tax (Consolidation) Act, 1917, consolidating the various Union Acts dealing with taxation, came into force during the year. Provision has been made for the estimated amount payable.

OPERATIONS.

The attached Reports of the Consulting Engineer and the General Manager, to which your attention is directed, give detailed particulars of Construction Work, Mining Operations, and results obtained during the year.

Tables showing the monthly returns for the year and results since the commencement of milling operations, and a plan of the underground workings, are also annexed.

The developed ore reserves at the end of the year totalled 3,320,000 tons of an average assay value of 8.7 dwts. per ton over a stoping width of 73 inches. The tonnage and width are the same as for the previous year, whilst the assay value shows an improvement of .3 dwt. per ton.

GENERAL.

Employees on Active Service.—Twenty-seven of the Company's employees are still on active service. Your Directors record with great regret that Private G. Pullen has been killed in action; an expression of deep sympathy has been conveyed to his relatives.

The payment of allowances to dependants has been continued.

Directors.—The Directors to retire at this Meeting are Messrs. W. Ross and W. R. Crowhurst. They are eligible, and offer themselves for re-election.

Auditors.—You are asked to fix the remuneration for the past audit, and to appoint Auditors for the ensuing year. Mr. Charles Stuart and Messrs. F. W. Diamond and English, the retiring Auditors, offer themselves for re-appointment.

H. NEWHOUSE, Chairman.
H. C. BOYD,
W. R. CROWHURST,
F. R. LYNCH,
V. J. RONKETTI,
W. ROSS, Directors.
C. L. CHALMERS, Secretary.

Johannesburg, 26th March, 1918.

The Modderfontein Deep Levels, Limited—continued.

BALANCE SHEET, 31st DECEMBER, 1917.

Dr.		Cr.	
To Capital Account—		By Property—	
500,000 Shares of £1 each, all		Balance at 31st December, 1916 ...	£91,396 16 10
of which are issued	£500,000 0 0	„ Shafts—	
„ Share Premium—		Balance at 31st December, 1916 ...	181,340 19 9
As per Balance Sheet at 31st		„ Equipment, including Furniture—	
December, 1916	229,000 0 0	Balance at 31st December, 1916...£374,145 5 5	
„ Funds Transferred from Appro-		Expenditure during year 1917 ...	26,369 2 2
priation Account—			400,514 7 7
For Equipment, etc.—		„ Mine Development—	
As per Balance		Balance at 31st December, 1916... 174,481 3 5	
Sheet at 31st		Add Excess Expenditure during	
Dec., 1916£108,192 2 5		year 1916	5,696 0 10
Less amount in-			180,177 4 3
cluded therein for			
Shares, Normal			£856,429 8 5
Stores and Live		„ Ore on Surface	29,833 17 7
Stock now carried		„ Live Stock and Vehicles	430 0 0
as Cash Assets... 12,827 17 0		„ Shares and Interests in Other	
	£95,364 5 5	Concerns	3,106 15 0
Add Amount Appropriated for			
year ended 31st December,		119 £10 Rand Mutual Assurance	
1917	32,065 3 0	Co., Ltd Shares, £6 each paid.	
	127,429 8 5	553 £1 Witwatersrand Native	
	£856,429 8 5	Labour Association, Ltd., shares,	
„ Sundry Shareholders—		12s. each paid, plus deposit. *	
Unpaid and Unclaimed Divi-		18 £1 Native Recruiting Corpora-	
dends	229,039 13 5	tion. Ltd. shares, fully paid,	
„ Sundry Creditors	81,068 15 10	plus deposit.	
„ Balance of Appropriation A/c—		1,198 £1 Witwatersrand Co-opera-	
Unappropriated	126,475 6 1	tive Smelting Works, Ltd.,	
Contingent Liabilities—		shares, 10s. 6d each paid.	
(1) Rand Mutual Assurance Co.,		„ Stores and Material on Hand ...	81,382 3 4
Ltd.—£4 per share uncalled		„ Amounts Paid in Advance	90 8 8
on 119 shares	£476 0 0	„ Sundry Debtors	3,711 13 11
Witwatersrand Native Labour		„ Cash	
Association, Ltd.—8s. per share		At Bankers, in Hand, and on	
uncalled on 553 shares	221 4 0	Deposit at Call	£285,935 16 10
Native Recruiting Corporation,		Gold in Transit	32,093 0 0
Ltd.—Balance of deposit un-			318,028 16 10
called	2,168 5 0		
Witwatersrand Co-operative Smelt-			
ing Works, Ltd.—9s. 6d. per			
share uncalled on 1,198 shares	569 1 0		
	£3,434 10 0		
(2) Contracts open for the Sup-			
ply of Stores, etc.			
	£1,293,013 3 9		£1,293,013 3 9

C. L. CHALMERS.
Secretary.

To the Shareholders,

THE MODDERFONTEIN DEEP LEVELS, LIMITED.

We report that we have audited the above Balance Sheet with the Books and Vouchers of the Company in Johannesburg, and the Accounts received from London, for the year ending 31st December, 1917, and have obtained all the information and explanations we have required. In our opinion such Balance Sheet is properly drawn up so as to exhibit a true and correct view of the Company's affairs according to the best of our information and the explanations given to us, and as shown by the Books of the Company.

H. NEWHOUSE. Chairman.
W. ROSS, Director.F. W. DIAMOND & ENGLISH,
Incorporated Accountants,
CHARLES STUART,
Chartered Accountant,
Auditors.

Johannesburg, 26th March, 1918.

The Modderfontein Deep Levels, Limited—continued.

PROFIT AND LOSS ACCOUNT for the Year ended 31st December, 1917.

Dr.			Cr.		
To Mining	£213,395	12 5	By Gold Account—		
Sorting and Crushing	10,022	8 10	From Mill, 132,622.211 ozs. fine gold	£561,755	5 3
Milling	39,054	12 10	From Cyanide Works, 94,589.247 ozs. fine		
Cyaniding—Sands	17,078	1 10	gold	400,658	2 9
Cyaniding—Slimes	13,913	9 11	From By-products, 468.029 ozs. fine gold	1,979	18 4
Mine General Charges (including				£964,393	6 4
Gold Realization Charges)	78,915	8 7			
Head and Branch Offices Charges	6,117	6 3	„ Balance brought down	561,176	5 8
	£378,497	0 8	„ Interest	£7,154	6 9
Mine Development	24,720	0 0	„ Rents	969	19 9
	403,217	0 8		8,124	6 6
Balance carried down	561,176	5 8			
	£964,393	6 4			
Mine Development—					
Excess Expenditure during year					
1917	4,551	11 0			
Government Taxes—					
Under Income Tax (Consolidation)					
Act, 1917—					
Estimated provision for Tax on					
Income not taxable under Mining					
Taxation Act, 1910, for 6 months					
to 31st December, 1916	133	19 6			
Estimated provision for Normal					
Tax on Profits for year 1917	25,290	0 0			
Tax on Dividends Nos. 5 and 6	47,222	4 5			
	72,646	3 11			
Less Adjustment of Special War					
Levies Nos. 1 and 2	634	11 5			
	72,011	12 6			
Donations to Charities and War					
Funds	2,041	0 6			
(In addition £3,595 10s. 9d.					
were paid to employees on Active					
Service and their dependents)					
Contributions to Chamber of Mines					
Educational, Charitable and other					
organisations	372	2 10			
Depreciation—					
Written off Live Stock and					
Vehicles	74	0 0			
	79,050	6 10			
Balance carried to Appropriation					
Account	490,250	5 4			
	£569,300	12 2			
				£569,300	12 2

APPROPRIATION ACCOUNT.

Dr.			Cr.		
To Funds Appropriated—			To Balance Unappropriated—		
For expenditure on Equipment dur-			As per Balance Sheet at 31st December, 1916	£81,462	6 9
ing year 1917	26,369	2 2	„ Balance of Profit and Loss A/c—		
For Expenditure on Excess De-			For the year ended 31st December, 1917	490,250	5 4
velopment during year 1916	5,696	0 10			
	32,065	3 0			
Less Amount of Shares, Normal					
Stores and Live Stock charged					
against Capital A/c at 31st De-					
cember, 1916, now carried as					
Cash Assets	12,827	17 0			
	19,237	6 0			
Dividends—					
No. 5 of 40 per cent. to Share-					
holders registered at 30th June,					
1917	200,000	0 0			
No. 6 of 45 per cent. to Share-					
holders registered at 31st Decem-					
ber, 1917	225,000	0 0			
	425,000	0 0			
Directors Additional Remunera-					
tion—					
As per Trust Deed	1,000	0 0			
	445,237	6 0			
Balance Unappropriated—					
Carried to Balance Sheet	126,475	6 1			
	£571,712	12 1			
				£571,712	12 1

C. L. CHALMERS,
Secretary.H. NEWHOUSE, Chairman.
W. ROSS, Director.
F. W. DIAMOND & ENGLISH,
Incorporated Accountants,
CHARLES STUART,
Chartered Accountant,
Auditors.

Princess Estate & Gold Mining Co., Ltd.

(Registered under the Limited Liability Laws of the Transvaal.)

NOTICE TO SHAREHOLDERS.

NOTICE IS HEREBY GIVEN that the next Ordinary General Meeting of Shareholders in the Princess Estate and Gold Mining Company, Limited, will be held in the Board Room, 94, Main Street, Johannesburg, on WEDNESDAY, 26th JUNE, 1918, at 2.30 p.m., for the following purposes, namely:—

1. To receive and consider the Balance Sheet and Profit and Loss Account, together with the Directors' and Auditors' Reports, for the year ended 31st December, 1917.
2. To elect two Directors in place of Messrs. H. Newhouse and V. J. Ronchetti, who retire by rotation in accordance with the provisions of the Company's Articles of Association, but are eligible, and offer themselves for re-election.
3. To fix the remuneration of the retiring Auditors, Messrs. C. L. Andersson & Co. and Messrs. F. W. Diamond & English, and to appoint Auditors for the ensuing year.
4. To transact any other business that may be transacted at an Ordinary General Meeting.

The Transfer Books and Register of Members of the Company will be closed from the 19th June to the 10th July, 1918, both days inclusive.

Holders of Share Warrants, desirous of attending in person or by proxy, or of voting at the Meeting, must deposit their Share Warrants:—

- (a) At the Head Office of the Company in Johannesburg, at least 24 hours before the time appointed for the Meeting.
- (b) At the London Office, Pinners Hall, Austin Friars, E.C., or in Paris, with Mr. M. Tourret, 25, Rue de Clichy, at least 30 clear days before the time appointed for the Meeting;

together with a statement in writing of their names and addresses, and must comply with the other conditions applicable to Share Warrants.

By order of the Board,

C. L. CHALMERS,
Secretary.

Head Office:

94, Main Street

(P.O. Box 1125), Johannesburg,

25th April, 1918.

DIRECTORS' REPORT

For the Year ended 31st December, 1917.

To be submitted at the Ordinary Meeting of Shareholders, to be held in the Board Room, 94, Main Street, Johannesburg, on Wednesday, 26th June, 1918, at 2.30 p.m.

To the Shareholders,

PRINCESS ESTATE & G.M. CO., LTD.

Gentlemen,

Your Directors beg to submit their Report, together with the audited Statements of Account, and the Reports of the Consulting Engineer and General Manager, for the year ended 31st December, 1917.

CAPITAL.

On the 11th December a Notice and explanatory circular were issued to Shareholders, convening Extraordinary General Meetings for the 18th February and 13th March, 1918, to consider and, if thought fit, pass resolutions providing for the reconstruction of the Company. The proceedings at such Meetings are annexed to this Report, from which it will be noted that the resolutions embodied in the Notice were passed and confirmed as Special Resolutions. An Order of Court confirming the reduction of Capital was granted on the 14th March, such Order and the Special Resolutions were registered on the 16th March, and the increase of Capital by 500,000 new shares was subsequently registered on the 21st March, 1918, the new shares being issued at par to the nominees of Messrs. A. Goerz & Co., Ltd., in terms of the agreement with that firm.

The Registered and Issued Capital of the Company at date hereof is therefore £107,503 6s. 0d., divided into 1,075,033 shares of the nominal value of 2s. each.

PROPERTY.

The Property consists of:—

- (a) The freehold of a portion, in extent 1,576 morgen 429 square rods, of the Farm Rooipoort No. 43, District of Johannesburg, Witwatersrand Gold Fields;
- (b) Two Mynpachts (comprising areas of 99 morgen 549 square rods, and 99 morgen 532 square rods, respectively), situated upon the above-mentioned freehold portion;
- (c) Mining Claims held under licences, equal in area to 726.247 full claims;
- (d) Lease of Mining Rights underlying Water-right No. 60, on Rooipoort No. 43, equal in area to 18.1376 claims;
- (e) 53 Bewaarplaatsen;
- (f) 13 Machine Stands;
- (g) 1 Stand;
- (h) 13 Water-rights.

The above-mentioned rights are situated partly on the Farm Rooipoort No. 43, and partly on the adjoining Farm Witpoortje No. 44.

The title is in order.

ACCOUNTS.

The Balance Sheet and Profit and Loss Account, which accompany this Report, reflect the results of the Company's operations during the year and its position at the 31st December, 1917.

The Profit and Loss Account shows:—

Credit Balance from 1916	£9,173 19 7
Profit for 1917, including Sundry Revenue	11,550 0 9
Appropriated for Capital Expenditure but now re-credited	£9,832 14 8
Less Capital Expenditure	4,104 17 1
	<u>5,727 17 7</u>
	26,751 17 11

Against which have been charged:—

Interest on Advances	£493 9 0
Sundry Government Taxes	140 13 7
Donations	328 2 2
Expenses—Reconstruction of Company	205 4 8
Depreciation	89 0 0
	<u>1,256 9 5</u>

Leaving a Credit Balance of	<u>£25,495 8 6</u>
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(Represented by Cash and Cash Assets less Liabilities.)

Capital Expenditure totalled £4,104 17s. 1d., of which £3,019 7s. 3d. were expended during the year on alterations to the No. 1 Vertical Shaft (Central Deep Section). Union 5 per cent. Stock for £469 2s. 9d. was received from the Treasury, representing 19/40ths of the purchase price paid to the Government for the lease of Mining Rights under Water-right No. 60, which was due to the Company as freehold owner in terms of the Bewaarplaats Money's Application Act, 1917. This Stock was subsequently sold at par. Owing to the continued curtailment of development the amount redeemed was £9,363 11s. 11d. in excess of expenditure under this head.

The policy of keeping on hand exceptionally large stocks of stores and materials for mining purposes has been continued.

OPERATIONS.

The attached Reports of the Consulting Engineer and the General Manager, to which your attention is directed, give detailed particulars of mining operations and the results obtained during the year.

The payable ore reserves at the end of the year totalled 503,000 tons of an average assay value of 7.1 dwts. over a milling width of 34.6 inches. In addition there are 50,000 tons, assaying

Princess Estate and Gold Mining Company, Limited—continued.

7.5 dwts. over 26 inches, which must be left for shaft pillars. Comparison with the previous year shows an increase of 27,000 tons due to the estimate being based on a slightly greater width, the value being the same.

Working costs show an increase of 7d. per ton as compared with the previous year, against which an improvement of 7.7d. per ton in the yield has to be recorded, so that the working profit per ton is practically the same. The effects of the war have prejudicially affected Working Costs to the extent of about 2s. 6d. per ton.

Development work is now concentrated on the deepening of the No. 1 Vertical Shaft (Central Deep Section), connecting it by a bin and transfer level with the Incline, and continuing the sinking of the latter to open out the Main and South Reefs at lower levels. The abnormal rainfalls recently experienced have resulted in the flooding of the 13th or lowest level, which has caused a few weeks' delay in pushing on the work in the Incline.

GENERAL.

Employees on Active Service.—Thirteen of the Company's employees are still on Active Service. Your Directors record with

great regret that Privates C. W. T. Cowey and G. R. C. Coxhead have died of wounds; expressions of deep sympathy have been conveyed to the relatives.

Payment of allowances to dependents has been continued.

Directors.—The Directors to retire at this Meeting are Messrs. H. Newhouse and V. J. Ronketti. They are eligible, and offer themselves for re-election.

Auditors.—You are asked to fix the remuneration for the past audit, and to appoint Auditors for the ensuing year. Messrs. C. L. Andersson and Co. and Messrs. F. W. Diamond and English, the retiring Auditors, offer themselves for re-appointment.

H. NEWHOUSE, Chairman.

W. R. CROWHURST,

R. DES CLAYES,

F. C. DUMAT,

J. JEPPE,

V. J. RONKETTI,

G. SONN,

T. G. SUTER,

Directors.

C. L. CHALMERS, Secretary.

Johannesburg, 22nd March, 1918.

PROFIT AND LOSS ACCOUNT No. 1, for Year ended 31st December, 1917.

Dn.	
To Mining	£178,871 11 2
„ Transport of Ore	5,787 12 5
„ Sorting and Crushing	5,450 3 3
„ Milling	23,728 10 1
„ Cyaniding Sands	14,559 1 10
„ Cyaniding Slimes	12,204 14 1
„ Mine General Charges (including Gold Realisation Charges)	49,203 0 9
„ Head and Branch Office Charges	4,510 4 2
	£294,314 17 9
„ Mine Development Redemption	32,700 0 0
	327,014 17 9
„ Balance carried to No. 2 Account	7,358 8 6
	£334,373 6 3

Cr.	
By Gold Account—	
From Mill, 60,974.367 ozs. fine gold	£258,405 3 3
From Cyanide Works, 16,831.751 ozs. fine gold	71,241 10 2
From By-Products, 1,249.652 ozs. fine gold	4,726 12 10
	£334,373 6 3

PROFIT AND LOSS ACCOUNT No. 2, for Year ended 31st December, 1917.

Dr	
To Interest on Advances	£493 9 0
„ French Fiscal Taxes	75 1 7
„ Contributions to Chamber of Mines Education, Charitable and other Organisations, and Donations to Charities and War Funds	328 2 2
(In addition £1,509 was paid to employees on Active Service and their dependents.)	
„ Expenses—Reconstruction of Company	205 4 8
„ Income Tax (Union of South Africa)—Estimated provision for Tax on Income not taxable under Mining Taxation Act, 1910, for 6 months to 31st December, 1916	65 12 0
„ Depreciation—Written off Live Stock and Vehicles	89 0 0
	£1,256 9 5
„ Balance carried to Balance Sheet	25,495 8 6
	£26,751 17 11

Ca.	
By Balance at 31st December, 1916	£9,173 19 7
„ Balance from No. 1 Account	7,358 8 6
„ Rents	£1,432 16 2
„ Owners' Share of Licences	2,503 17 10
„ Sundry Revenue	554 18 3
	4,491 12 3
„ Funds Appropriated for Capital Expenditure now written back—Credits to Property and Mine Development Accounts	9,832 14 8
Less Funds Appropriated for—Capital expenditure during year 1917 £3,019 7 3	
Previous Capital Expenditure	1,035 9 10
	4,104 17 1
	5,727 17 7
	£26,751 17 11

C. L. CHALMERS, Secretary.

H. NEWHOUSE, Chairman.

T. G. SUTER, Director.

F. W. DIAMOND & ENGLISH,

C. L. ANDERSSON & CO.,

Incorporated Accountants,

Auditors.

Johannesburg, 21st March, 1918.

Princess Estate and Gold Mining Company, Limited—continued.

BALANCE SHEET, at 31st DECEMBER, 1917.

Dr.			Cr.		
To Capital Account—			By Property—		
575,035 Shares of £1 each	£575,033	0 0	Balance at 31st December, 1916...	£218,586	17 0
(Authorised Capital, £650,000.)			Less Amount received from Union		
Note—Nominal value of above shares			Treasury under Bewaarplaats		
reduced to 2s. each by Special Re-			Moneys Application Act, 1917 ...	469	2 9
solution and confirmatory Order of				£218,117	14 3
Court registered 16th March, 1918.			„ Shafts—		
Capital subsequently increased by			Balance at 31st December, 1916 .	175,917	17 4
issue of 500,000 new shares of 2s.			Expenditure during year 1917 ...	2,956	2 1
each at par for cash.				178,873	19 5
„ Share Premium—			„ Equipment, including Furniture—		
As per Balance Sheet at 31st De-			Balance at 31st December, 1916 .	223,213	13 11
cember, 1916	37,605	2 8	Expenditure during year 1917 ...	63	5 2
„ Funds Transferred from Profit and				223,276	19 1
Loss Account for Capital Expen-			„ Mine Development—		
diture—			Balance at 31st December, 1916 .	32,053	10 5
As per Balance Sheet at 31st De-			Less Redeemed in excess of Ex-		
cember, 1916	£36,048	6 2	penditure during year 1917 ...	9,363	11 11
Less Net Credit, as per Profit and				22,689	18 6
Loss Account for year ended					
31st December, 1917	5,727	17 7			
	30,320	8 7			
	£642,958	11 3			
„ A. Goerz and Co., Ltd.—			„ Live Stock and Vehicles	611	0 0
Advances, including Interest to			„ Stores and Material on Hand	38,116	19 9
31st December, 1917	2,016	7 2	„ Shares and Interests in other Con-		
„ Sundry Creditors	22,682	3 2	cerns	2,934	17 0
„ Profit and Loss Account—			99 £10 Rand Mutual Assurance		
Balance	25,495	8 6	Co., Ltd., shares—£6 each paid.		
Contingent Liabilities—			614 £1 Witwatersrand Native Lab-		
(1) Rand Mutual Assurance Co., Ltd.—			our Association, Ltd., shares—		
£4 per share uncalled on 99 shares	£396	0 0	12s. each paid, plus Deposit.		
Witwatersrand Native Labour As-			31 £1 Native Recruiting Corpora-		
sociation, Ltd.—			tion, Ltd., shares—fully paid,		
8s. per share uncalled on 614			plus Deposit.		
shares	245	12 0	678 £1 Witwatersrand Co-operative		
Native Recruiting Corporation, Ltd.—			Smelting Works, Ltd., shares—		
Balance of deposit uncalled	2,454	0 0	10s. 6d. each paid.		
Witwatersrand Co-operative Smel-			„ Amounts Paid in Advance	343	15 1
ting Works, Ltd.—			„ Sundry Debtors	3,426	15 1
9s. 6d. per share uncalled on 678			„ Cash—		
shares	322	1 0	At Bankers and on Hand	1,737	15 3
	£3,417	13 0	Gold in Transit	5,445	0 0
				7,182	15 3
			Less Nominal Overdraft at National		
(2) Contracts open for the supply of stores, etc.			Bank of S.A., Ltd., Roodepoort		
			(Manager's Account)	2,422	3 4
				4,760	11 11
	£693,152	10 1		£693,152	10 1

C. L. CHALMERS, Secretary.

To the Shareholders,
PRINCESS ESTATE AND GOLD MINING CO., LTD.

We have audited the Balance Sheet of the Princess Estate and Gold Mining Co., Ltd., dated the 31st day of December, 1917, above set forth, and have obtained all the information and explanations we have required. In our opinion such Balance Sheet is properly drawn up so as to exhibit a true and correct view of the state of the Company's affairs according to the best of our information and explanations given us and as shown by the Books of the Company.

Johannesburg, 21st March, 1918.

H. NEWHOUSE, Chairman.
T. G. SUTER, Director.

F. W. DIAMOND & ENGLISH,
C. L. ANDERSSON & CO.,
Incorporated Accountants,

Auditors.

Geduld Proprietary Mines, Limited.

(Registered under the Limited Liability Laws of the Transvaal.)

NOTICE TO SHAREHOLDERS.

NOTICE IS HEREBY GIVEN that the Seventeenth Ordinary General Meeting of Shareholders in the Geduld Proprietary Mines, Limited, will be held in the Board Room, 94, Main Street, Johannesburg, on Wednesday, 26th June, 1918, at 3.15 p.m., for the following purposes, namely:—

- 1.—To receive and consider the Balance Sheet and Profit and Loss Account, together with the Directors' and Auditors' Reports, for the year ended 31st December, 1917.
- 2.—To elect two Directors in place of Messrs. F. R. Lynch and H. Strakosch, who retire by rotation in accordance with the provision of the Company's Articles of Association, but are eligible, and offer themselves for re-election.
- 3.—To fix the remuneration of the retiring Auditors, Mr. Charles Stuart and Messrs. F. W. Diamond and English, and to appoint Auditors for the ensuing year.
- 4.—To transact any other business that may be transacted at an Ordinary General Meeting.

The Transfer Books and Register of Members of the Company will be closed from the 12th to the 26th June, 1918, both days inclusive.

Holders of Share Warrants desirous of attending in person or by proxy, or of voting at the meeting, must either produce their Share Warrants for verification or deposit them;

- (a) At the Head Office of the Company in Johannesburg, at least 14 clear days before the time appointed for the meeting;
 - (b) At the London Office, Pinners Hall, Austin Friars, E.C., or in Paris, with Mr. M. Tourret, 25, Rue de Clichy, at least thirty clear days before the time appointed for the meeting;
- together with a statement in writing of their names and addresses, and must comply with the other conditions applicable to Share Warrants.

By Order of the Board,

C. L. CHALMERS,

Secretary.

Head Office:

94, Main Street (P.O. Box 1125), Johannesburg.
25th April, 1918.

DIRECTORS' REPORT

For the Year ended 31st December, 1917.

To be submitted at the Seventeenth Ordinary General Meeting of Shareholders, to be held in the Board Room, 94, Main Street, Johannesburg, on Wednesday, 26th June, 1918, at 3.15 p.m.

To the Shareholders,

GEDULD PROPRIETARY MINES, LIMITED.

Gentlemen,—Your Directors beg to submit their Report, together with the audited Statements of Account, and the Reports of the Consulting Engineer and the General Manager, for the year ended 31st December, 1917.

CAPITAL.

By Special Resolution, passed and confirmed at Extraordinary General Meetings, held on the 20th June and 6th July respectively, and subsequently registered on the 11th July, 1917, power was conferred on your Directors to increase the Capital from time to time up to £1,500,000.

Such power has not yet been exercised, so that the registered and issued capital of the Company remains at £970,000.

PROPERTY.

The property consists of:—

- (a) The freehold, in extent 4,004 morgen 67 square rods, of the main portion of the Farm Geduld, No. 24, situated in the eastern section of the Witwatersrand Gold Fields.
- (b) Mining Rights, secured under Mynpacht titles, over an area of 1,646 morgen 339 square rods, and 110 Prospecting Claims, forming together a mining area equivalent to 2,481 claims on the aforementioned freehold area. The surface of a large portion of the area held under Mynpacht title is also covered by Werf title.
- (c) Water-right in respect of the President Dam.
- (d) Agricultural Rights over portion of the freehold.

The Mines Department has cancelled portion of the permit granting agricultural rights, in so far as it relates to an area on the southern boundary of the farm, and has given notice of its intention to cancel the balance of such permit.

The titles are in order.

ACCOUNTS.

The Balance Sheet, Profit and Loss Account and Appropriation Statement, which accompanied this report, reflect the result of the Company's operations during the year and its position at the 31st December, 1917.

The Profit and Loss Account shows:—

Profit for the year 1917, including	
Sundry Revenue	£221,205 12 8
Against which have been charged:—	
Excess Mine Development	£12,848 14 5
Interest	936 6 1
Government Taxes	18,797 9 4
Donations	1,742 3 4
Depreciation	77 17 8
	<u>34,062 10 8</u>

Balance to Appropriation Account .. £187,143 2 0

The Appropriation Account shows:—

Balance unappropriated at 31st December, 1916	£44,322 6 5
Balance of Profit and Loss Account, as above	187,143 2 0
	<u>£231,465 8 5</u>

Which amount has been charged out at follows:—

Capital Expenditure (balance)	£132,665 8 5
Dividends Nos. 6 and 7	97,000 0 0
Directors' Additional Fees	1,800 0 0

£231,465 8 5

The expenditures on Capital Account totalled £162,050.10s. 8d. In the last Balance Sheet the amounts appearing against Livestock and Vehicles, Normal Stores and Material, and Shares in other concerns, totalling £15,992 9s. 0d., were shown above the line as a charge against Capital Account. On the advice of the Company's Auditors such assets are now shown below the line as "Cash Assets," and Capital Account has been credited with

Geduld Proprietary Mines, Ltd.—(Continued).

£15,992 9s. 0d. The balance to be appropriated for capital expenditure is, therefore, £146,058 1s. 8d., of which £132,665 6s. 5d. has been appropriated, leaving £13,392 13s. 3d., as shown in the Balance Sheet, to be provided for out of the current year's profits.

Dividends Nos. 6 and 7, of 5 per cent. each, were declared during the year. The total amounts accrued to Enemy Subjects have been paid over to the Custodian of Enemy Property or to the Public Trustee (England) pursuant to the Trading with the Enemy Act, 1916.

A net profit of £571 19s. 4d. has been realised from the lease of agricultural lots, such amount, in addition to £319 6s. 8d. realised in 1916, being included under the head of Sundry Creditors, as shown in the Balance Sheet. Your Directors have in mind the utilisation of profits from this source for tree-planting.

The policy of keeping on hand exceptionally large stocks of stores and materials for mining purposes has been continued.

The Income Tax (Consolidation) Act, 1917, consolidating the various Union Acts dealing with taxation, came into force during the year. Provision has been made for the estimated amount payable.

OPERATIONS.

The attached reports of the Consulting Engineer and the General Manager, to which your attention is directed, give detailed particulars of construction work, mining operations, and results obtained during the year.

Tables showing the monthly returns for the year and results since the commencement of milling operations, and a plan of the underground workings, are also annexed.

The additional Reduction Plant was brought into operation in March, 1917, but, owing to renovation work on the foundations of the old battery, the full 100 stamps were not dropped until the 23rd January, 1918.

The developed ore reserves at the end of the year totalled 2,200,000 tons of an average assay value of 7.5 dwts. over a stopping width of 61 inches. These figures show an increase of 50,000 in tonnage as compared with the previous year, the value and width remaining approximately the same.

Through the courtesy of the Central Mining and Investment Corporation, Limited, the valuable services of M. Francois were placed at the Company's disposal in connection with the cementation of water bearing fissures. The Consulting Engineer deals in his report with the progress made.

GENERAL.

On the advice of the Consulting Engineer a tender was put in for the Geduld South Mining Lease offered by the Government, but was not successful.

Employees on Active Service.—Forty of the Company's employees are still on Active Service. Your Directors record with great regret that Sec.-Lieut. John Newbery has been killed in action, and Private S. E. Parker is missing (death accepted). Expressions of deep sympathy have been conveyed to their relatives.

Payment of allowances to dependents has been continued.

Directors.—The Directors to retire at this meeting are Messrs. F. R. Lynch and H. Strakosch. They are eligible, and offer themselves for re-election.

Auditors.—You are asked to fix the remuneration for the past audit, and to appoint Auditors for the ensuing year. Mr. Charles Stuart and Messrs. F. W. Diamond and English, the retiring Auditors, offer themselves for re-appointment.

H. NEWHOUSE,
Chairman,

H. C. BOYD,
R. DES CLAYES,
G. FALCKE,
F. R. LYNCH,
V. J. RONKETHI,
G. SONN,

Directors,

C. L. CHALMERS,

Secretary.

Johannesburg, 30th March, 1918.

BALANCE SHEET, 31st DECEMBER, 1917.

Dr.		Cr.	
To Capital Account—		By Property—	
970,000 Shares of £1 each ...	£970,000 0 0	Balance at 31st December, 1916 ...	£286,778 9 6
(Authorised Capital, £1,500,000.)		„ Shafts, etc.—	
„ Share Premium—		Balance at 31st December, 1916 ...	£222,144 5 11
As per Balance Sheet at 31st		Expenditure during the year 1917	75,339 1 6
December, 1916 ...	153,091 17 6		297,783 7 5
„ Funds Transferred from Approp-		„ Equipment, including Furniture—	
riation A/c for Plant, Equip-		Balance at 31st December, 1916 ...	622,927 12 1
ment, etc., including Develop-		Expenditure during the year 1917	86,711 9 2
ment—			709,639 1 3
As per Balance		„ Mine Development—	
Sheet at 31st		Balance at 31st December, 1916	189,962 0 10
Dec., 1916 ...	£215,012 19 10		
Less amount in-			
cluded therein for			
shares normal			
stores and live			
stock now carried			
as cash assets ...	15,992 9 0		
	£199,020 10 10		
Add amount appropriated for			
year ended 31st December, 1917	148,657 17 5		
	347,678 8 3		
„ Balance of Working Capital			
Account ...	13,392 13 3		
	£1,484,162 19 0		£1,484,162 19 0
To Sundry Shareholders—		By Balance of Working Capital as	
Unpaid and Unclaimed Dividends	£57,817 13 11	per contra ...	£13,392 13 3
„ Sundry Creditors — including		„ Live Stock and Vehicles ...	875 0 0
£18,822 11s. 9d. temporarily		„ Shares and Interests in Other	
advanced by A. Goerz and Co.,		Concerns ...	3,052 0 6
Ltd. ...	82,179 12 10	140 £10 Rand Mutual Assurance	
Contingent Liabilities—		Co., Ltd., shares, £6 each paid.	
(1) Rand Mutual Assurance Co.,		515 £1 Witwatersrand Native	
Ltd.—£4 per share uncalled		Labour Association, Ltd., shares,	
on 140 shares ...	£560 0 0	12s. each paid, plus deposit.	
Witwatersrand Native Labour		26 £1 Native Recruiting Corpora-	
Association, Ltd.—8s. per		tion, Ltd., shares, fully paid,	
share uncalled on 515 shares ...	206 0 0	plus deposit.	
Native Recruiting Corporation,		851 £1 Witwatersrand Co-operative	
Ltd.—Balance of deposit un-		Smelting Works, Ltd., shares,	
called ...	2,359 10 0	10s. 6d. each paid.	
Witwatersrand Co-operative Smelt-		„ Stores and Material on hand ...	99,534 7 4
ing Works, Ltd.—9s. 6d. per		„ Amounts Paid in Advance ...	6,279 1 2
share uncalled, on 851 shares	404 4 6	„ Sundry Debtors ...	4,466 3 8
	£3,529 14 6	Cash—	
		At Bankers and in Hand ...	£10,009 0 10
(2) Contracts open for the sup-		Gold in Transit estimated at ...	2,359 0 0
ply of Stores, etc.			12,398 0 10
	£139,997 6 9		£139,997 6 9

Geduld Proprietary Mines, Ltd.—(Continued).

PROFIT AND LOSS ACCOUNT for the Year ended 31st December, 1917.

Dr.			Cr.
To Mining	£190,622	16 0	
„ Sorting and Crushing	4,630	12 3	
„ Milling	46,168	14 4	
„ Cyaniding—Sands	16,309	12 8	
„ Cyanading—Slimes	15,252	12 9	
„ Mine General Charges (including Gold Realization Charges)	79,763	4 6	
„ Head and Branch Office Charges	7,265	9 3	
	£360,013	1 9	
„ Mine Development Redemption	58,513	2 6	
	418,526	4 3	
„ Balance carried down	212,837	18 2	
	£631,364	2 5	
„ Mine Development—			
Excess Expenditure during year 1917	£12,848	14 5	
„ Interest on Advances	996	6 1	
„ Government Taxes—			
Under Income Tax (Consolidation) Act, 1917—			
Estimated provision for tax on income not taxable under Mining Taxation Act, 1910, for 6 months to 31st December, 1916	£110	12 0	
Estimated provision for Normal Tax on Profits for year 1917	3,120	0 0	
Tax on Dividends Nos. 6 and 7	10,777	15 6	
	19,008	7 6	
Less Adjustment of Special War Levies Nos. 1 and 2	210	18 2	
	18,797	9 4	
„ Donations to Charities and War Funds	1,003	7 0	
(In addition, £5,947 8s. 4d. were paid to employees on Active Service and their dependents.)			
„ Contributions to Chamber of Mines Educational, Charitable and other organisations	338	16 4	
„ Depreciation—			
Written off Live Stock and Vehicles	77	17 6	
	34,062	10 8	
„ Balance carried to Appropriation Account	187,143	2 0	
	£221,205	12 8	
			£221,205 12 8
By Gold Account—			
From Mill, 66,216.151 ozs. fine gold	£220,741	8 0	
From Cyanide Works, 81,408.509 ozs. fine gold	344,716	14 11	
From By-products, 1,458.526 ozs. fine gold	5,905	10 6	
			£221,837 18 2
„ Balance brought down			£212,837 18 2
„ Rents	£2,607	15 11	
„ Water Sold	5,370	3 11	
„ Owners' Share of Licences	210	16 6	
„ Sundry Revenue, less Sundry Payments	178	18 2	
			8,367 14 6

APPROPRIATION ACCOUNT.

Dr.			Cr.
To Funds* Appropriated for year—			
For Expenditure on Equipment, etc.	£148,657	17 5	
Less Amount of Shares, Normal Stores and Live Stock Charged against Capital A/c at 31st December, 1916, now carried as Cash Assets	15,992	9 0	
	£132,665	8 5	
„ Dividends—			
No. 6 of 5 per cent. to Shareholders registered at 30th June, 1917	48,500	0 0	
No. 7 of 5 per cent. to Shareholders registered at 31st December, 1917	48,500	0 0	
	97,000	0 0	
„ Directors' Additional Remuneration	1,800	0 0	
As per Trust Deed.			
	£231,465	8 5	
			£231,465 8 5
By Balance Unappropriated—			
As per Balance Sheet at 31st December, 1916	£44,322	6 5	
„ Balance of Profit and Loss Account for the year ended 31st December, 1917	187,143	2 0	

C. L. CHALMERS,
Secretary.

To the Shareholders,

GEDULD PROPRIETARY MINES, LTD.

We report that we have audited the above Balance Sheet and the accounts received from London, for the year ending 31st December, 1917, and have obtained all the information and explanations we have required. In our opinion such Balance Sheet is properly drawn up so as to exhibit a true and correct view of the Company's affairs, according to the best of our information and the explanations given to us, and as shown by the Books of the Company.

Johannesburg, 28th March, 1918.

H. NEWHOUSE, Chairman.

RAYMOND DES CLAYES, Director.

F. W. DIAMOND & ENGLISH,
Incorporated Accountants,
CHARLES STUART,
Chartered Accountant,
Auditors.

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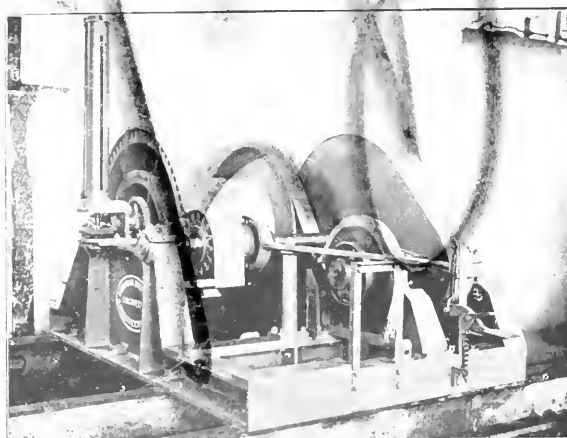
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